

Air Conditioning & Refrigeration News

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Unions Charged With Conspiracy By Distributor

Milwaukee Electrical Firm Says They Tried To Injure Business

MILWAUKEE — Morley-Murphy Co., electrical appliance distributor here, filed charges July 1 with the state employment relations board against the Household Furniture Sales and Service Men's Union, Local No. 1343; the Chauffeurs, Teamsters & Helpers Union, Local 200; and the Electrical Workers Union, Local 1092, complaining that the unions and their representatives had conspired to damage the firm's business.

Specifically, the Morley-Murphy complaint charged that the clerks' union and its business representative, Herman Burbach, had conspired to injure the company's business by inducing customers not to accept deliveries and by threatening company employees. The complaint accuses Milton Peters of the electrical workers' group and Arthur Lemke of the truck drivers' union of being conspirators in the plot.

Klopsch and Hanna New Wolverine Tube Officers

DETROIT—Several changes were made in the executive staff of the Wolverine Tube Co. at a meeting July 7 of the company's board of directors, the new promotions to the executive staff being the election of O. Z. Klopsch as vice president and general manager, and V. D. Hanna as secretary and treasurer.

C. C. Limbocker, formerly president of the company, was elected chairman of the board, and H. J. Hooks, former secretary and treasurer, was elevated to the presidency of the company. Mr. Limbocker and Mr. Hooks have been with Wolverine Tube Co. for the past 20 years.

J. D. Colyer, vice president in charge of sales, and G. R. Anthony, vice president, were re-elected by the board.

Horter Directs Sales For Cutler-Hammer

MILWAUKEE—B. M. Horter has been appointed general sales manager of Cutler-Hammer, Inc., manufacturer of motor control equipment. In his new duties, Mr. Horter will have direct supervision of sales in the company's 24 selling territories throughout the country.

Prior to his new appointment, Mr. Horter was in charge of the resale sales division of the company at Milwaukee. He has a wide background of experience with Cutler-Hammer, and is the holder of a number of patents on motor control apparatus.

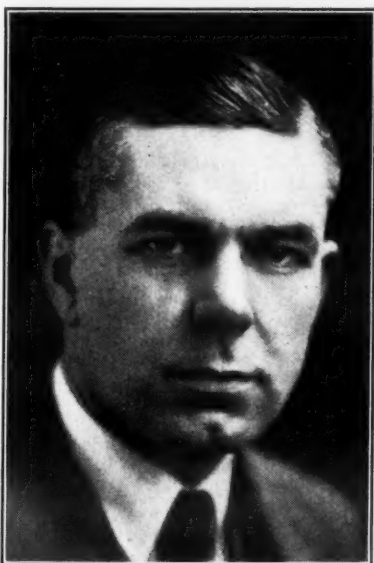
Joining Cutler-Hammer as a sales engineer in the Philadelphia area, Mr. Horter in 1921 opened a new sales territory in Wilkes Barre, Pa., and later was named manager of the New England sales territory with headquarters in Boston. He has been manager of resale sales since 1934.

S. H. Shipley Resigns as York Works Manager

YORK, Pa.—Samuel H. Shipley has resigned as general works manager of the York Ice Machinery Corp. He will continue as a director of the corporation, however.

Mr. Shipley will devote his entire time to the direction of the interests of Thomas Shipley, Inc.

In Charge



H. L. ANDREWS

Andrews Heads G-E Appliance Division

NEW YORK CITY—H. L. Andrews of Bronxville, vice president of the General Electric Co. since 1934 in charge of the company's transportation activities, will take charge at once of the appliance and merchandise department with headquarters in Bridgeport, Conn., Charles E. Wilson, executive vice president, announced last Friday.

Mr. Andrews, a native of Missouri and graduate of the University of Missouri, entered the employ of General Electric in 1910 and for the past 29 years has had wide range of experience in engineering, manufacturing, and sales departments. For the past three years he has been vice chairman of the company's sales committee.

As head of the appliance and merchandise department, Mr. Andrews will be responsible for the company's activities in the major and traffic appliances as well as construction materials.

Washer-Ironer Week Is Planned For October

CHICAGO—Plans to stage a second annual Washer-Ironer Week Oct. 14 to 21 were approved by members of American Washer & Ironer Manufacturers Association at their summer meeting at the Chicago Golf Club in Wheaton last week.

President W. Neal Gallagher told (Concluded on Page 15, Column 5)

Nebraska Utility Cites Sales Records To Prove Importance of Cold Canvass In Refrigerator Selling

OMAHA, Neb.—Some revealing figures on sales of household appliances in this city during the last two years were recently reported by C. Haney, assistant sales manager for the Nebraska Power Co. retail stores. They showed the following drop in sales of refrigerators and washers, with increase in sales of vacuum cleaners.

Year	Refrigerators	Washers	Vacuum Cleaners
1936	6,545	4,438	1,775
1937	6,300	3,618	2,210
1938	5,430	3,055	2,397
Per cent decrease on refrigerators in two years			
18.78			
Per cent decrease on washers in two years			
30.94			
Per cent increase on vacuum cleaners in the same two years			
35.04			

The three items used are all considered household necessities, so there is no favoritism shown in the selection.

"Why," asks Mr. Haney, "should sales drop 18.78% on refrigerators and 30.94% on washers? Why should there be a gain in the sale of

Weekly Salesmen's Drawings Helped Grand Rapids Drive Go Over the Top

By James McCallum and Robert M. Price

GRAND RAPIDS, Mich.—Sales of electric refrigerators soared 383 units over a 1,000-unit quota in a seven-week drive as manufacturers, distributors, retailers, and the utility coordinated their efforts with Modern Kitchen Bureau promotion to place the stamp of success on the first cooperative refrigerator campaign ever to be staged in Grand Rapids.

The campaign got under way May 1 with a combined pep meeting and breakfast for all participants, after 12 refrigerator manufacturers, their local distributors, and Consumers Power Co. had joined financial forces to raise a "war chest" of \$4,825 to carry on the drive.

Manufacturers participating in the campaign were Westinghouse, Hotpoint, Kelvinator, Frigidaire, Copeland, General Electric, Gibson, Leonard, Norge, Stewart-Warner, and Philco.

Details of the program were planned and directed by an operating committee composed of four distributorship heads and one utility representative. Members of this committee were: John W. Miltgen, Radio Distributor Co. (Norge); A. S. Joseffy, General Electric Supply Corp. (G-E); Walter Nilsson, Nilsson Distributing Co. (Hotpoint); John White, J. A. White Distributing Co. (Leonard); and O. W. Kastens, Consumers Power Co. Mr. Kastens, assistant manager and superintendent of cooperative merchandising for the utility, served as secretary-treasurer of the committee.

Ford Housing Project To Get Air Cooling

DEARBORN, Mich.—Immediate construction of a two-story community business center building, 15 apartments with accommodations for 293 families, and 53 single homes in its new Springwells Park subdivision at Airport Drive and Greenfield Rd., Dearborn, at a construction cost of approximately \$1,525,000 is planned by trustees of the Ford Foundation.

In addition to these immediate building plans, the foundation is preparing for early construction on the subdivision of 176 more single homes and apartments to accommodate approximately 158 families, the announcement said.

Contracts for the construction of the first group of apartments have been awarded to the Byrne Organization, which has built similar projects in other parts of the United States. The organization also has pioneered in the use of light-weight structural steel (Stran-Steel) in modern home construction. Local labor will be employed.

(Concluded on Page 20, Column 4)

The extensive advertising and promotional program made use of Modern Kitchen Bureau's "Electric Cold" theme and materials. Newspapers, billboards, and radio announcements daily carried the story of electric refrigeration to the buying public.

To keep salesmen and dealers constantly on their selling toes, eight breakfast meetings were held. These meetings were made especially attractive to salesmen by weekly presentations of cash awards for sales and attendance.

Each refrigerator sale during any week gave the salesman one chance in the drawing held at the following breakfast. To be eligible for the drawings, each sales ticket had to be approved by both dealer and distributor.

First prize in each of the weekly sales drawings was \$15, next two winners collected \$10 apiece, next five received \$5, and the last 10 lucky ticket holders drew \$2 each.

Attendance at the meetings qualified salesmen for a chance in another (Concluded on Page 8, Column 1)

Hulett & Harrington Get New G-E Jobs

BLOOMFIELD, N. J.—Harold T. Hulett has been named sales manager in charge of distribution activities for the newly combined air-conditioning and commercial refrigeration department of the General Electric Co. Mr. Hulett formerly headed the commercial refrigeration activities for the company when the division had headquarters at Cleveland.

Several other appointments were made in a "new division of responsibility move" announced by Stuart M. Crocker, manager of the newly created department.

Elliott Harrington, associated with the department since its inception, and more recently identified with commercial engineering and cooling sales, has been appointed product sales manager. He will head a division which will direct the general sales program for all products of the department, including automatic heating, cooling, air conditioning, and commercial refrigeration. The division will also have charge of sales estimates, pricing, and commercial engineering.

S. Martin, Jr., has been named manager of the installation and service division, the functions of which include product education, service information, product policies, return materials, and replacement part sales.

Glenn Gundell will continue as manager of the advertising and sales promotion division, to which have (Concluded on Page 7, Column 2)

Northern California Sales Up In May

SAN FRANCISCO—With refrigerators and radios leading the list, sales of all major electrical appliances in the San Francisco area registered substantial increases during May over the corresponding month of last year, dealer reports to the dealer sales promotion department of Pacific Gas & Electric Co. indicate.

Sales of household refrigerators during the month totaled 1,084 units, as against 882 in the same month of 1938. Radio sales were almost 1,000 units over their corresponding 1938 total, 4,002 table and console model (Concluded on Page 20, Column 1)

ASHVE Learns Of Fire Hazards In Big Systems

Multiple Floor Systems Require Protection, Inspector Says

MACKINAC ISLAND, Mich.—Small air-conditioning systems do not usually require any special fire protection when installed according to regulations, but large systems, supplying more than one floor of a building, present a hazard which calls for protective measures, regardless of installation methods employed, declared R. C. Loughhead, chief engineer of the Michigan Inspection Bureau, in a paper presented before the summer meeting of the American Society of Heating and Ventilating Engineers here.

Placing the onus for air-conditioning fires on the multiple floor system, Mr. Loughhead asserted that a system of this type which meets the regulations of the National Board of Fire Underwriters is practically nonexistent and may be described as a "pipe dream" at the present time.

Citing as an example a system installed in a large department store which provides conditioned air to the sub-basement, basement, first floor, and mezzanine, with the equipment located in the sub-basement, Mr. Loughhead asserted that such an installation, regardless of its design, might include more potential fire hazards than any other type.

This system serves more than one floor from below, so that gravity, in conjunction with the direction of airflow, tends to increase the possibility (Concluded on Page 14, Column 1)

Research Program To Be Expanded

MACKINAC ISLAND, Mich.—The number of colleges and universities cooperating with the American Society of Heating & Ventilating Engineers research activities will be materially increased during the coming year, reported W. L. Fleisher, chairman of the society's research committee, at the midyear convention here.

A study of cooling towers will be continued at the University of California under the supervision of L. K. M. Boelter, professor of mechanical engineering.

Registers and grilles will be investigated at the University of Illinois over a three-year period as part of the society's regular work in connection with the Research Residence.

Air distribution and friction in (Concluded on Page 15, Column 4)

Wisconsin Law Would License Service Men

MADISON, Wis.—Refrigeration contractors would be examined and licensed, and refrigeration installations would be inspected under terms of a bill given approval by the state senate. On receipt in the assembly, the measure was referred to the committee on judiciary.

The bill as approved by the upper house was offered in lieu of a measure originally submitted to govern air-conditioning contractors and air-conditioning installations. The present measure will be more inclusive, as it will apply to all mechanical refrigeration systems and not only those used in air-conditioning systems.

The measure, which is expected to receive concurrence by the assembly (Concluded on Page 7, Column 3)

Controllers Congress Blames Low Markup For Department Store Appliance Losses

1938 Typical Refrigeration Department Merchandising & Operating Results

				Sales %	Returns %		Age of Stock at Inventory			Total		
Markup	Mark Down	Gross Margin	Stock Turns	To Last Year	To Gross Sales	Sales Per Sq. Ft.	% Under 6 Mos.	% 6-12 Mos.	% 12-18 Mos.	Operating Expense % To Sales	Profit or Loss	
GROUP I (Sales Volume \$500,000 to \$1,000,000)	35.6	7.1	27.4	3.1	62	22.1	40	50	34	8	40.3	L 12.9
GROUP II (Sales Volume \$1,000,000 to \$2,000,000)	37.2	4.8	30.0	4.1	70	15.9	44	64	30	3	38.9	L 8.9
GROUP III (Sales Volume \$2,000,000 to \$5,000,000)	34.9	6.0	27.6	3.8	72	17.7	44	56	36	4	37.1	L 9.5
GROUP IV (Sales Volume \$5,000,000 to \$10,000,000)	34.6	6.4	27.5	5.8	76	18.6	49	70	24	3	38.1	L 10.6
GROUP V (Sales Volume Over \$10,000,000)	32.6	6.0	26.0	4.4	70	18.1	55	70	25	3	38.2	L 12.2

1938 Typical Merchandising & Operating Results For Major Appliances Other Than Refrigerators

				Sales %	Returns %		Age of Stock at Inventory			Total		
Markup	Mark	Gross	Stock	To Last	To Gross	Sales	%	%	%	Operating	Profit	
	Down	Margin	Turns	Year	Sales	Per	Under	6-12	12-18	Expense %	or	
						Sq. Ft.	6 Mos.	Mos.	Mos.	To Sales	Loss	
GROUP I (Sales												
37.7	6.5	28.6	2.6	\$500,000 to \$1,000,000	80	13.9	34	66	22	6	41.3	L 12.7
GROUP II (Sales												
38.9	5.3	30.4	3.1	\$1,000,000 to \$2,000,000	80	17.3	32	57	24	11	42.8	L 12.4
GROUP III (Sales												
38.5	7.2	29.5	3.6	\$2,000,000 to \$5,000,000	80	15.1	42	73	13	7	40.9	L 11.4
GROUP IV (Sales												
38.4	6.1	30.1	4.2	\$5,000,000 to \$10,000,000	88	18.2	42	75	17	4	39.9	L 9.8
GROUP V (Sales												
38.0	7.4	29.0	4.0	Over \$10,000,000	75	16.5	35	67	21	8	37.6	L 8.6

BLACKSTONE WASHERS

Engineered
TO ASSURE QUIET
TROUBLE-FREE
Service

BONDERIZED TO ASSURE PROTECTION AGAINST RUST

MORE than sixty years of appliance building experience is reflected in the 1939 line of Blackstone Washers and Ironers. Engineered for greater operating efficiency, they appeal to the discriminating buyer.

Contributing to their effective sales appeal is the lustrous "Supernamel" finish, applied over Bonderizing on all important steel

parts. Thus, enamel is stabilized, rust is defeated and finish durability is assured.

The effectiveness of Bonderizing on products that will be exposed to corrosive conditions is a well known feature to careful buyers. It is an important point that the alert salesman can use to advantage. The customer will appreciate knowing about this essential quality.

PARKER RUST-PROOF COMPANY, 2197 E. MILWAUKEE AVE., DETROIT, MICHIGAN



Send For This Book

It describes Bonderizing in detail and gives the salesman a new talking point that helps close deals.

PARKER
Processes CONQUER RUST
BONDERIZING • PARKERIZING

Report of Operating Averages Shows Just How Books of Big Stores Record The Loss

NEW YORK CITY—Some of the reasons why the appliance department in 1938 made the poorest showing of any department store department with the exception of patterns (as reported in the June 21 issue of the NEWS) is indicated in the official "interpretation," just released, of the study of department and merchandising results made by the Controllers' Congress of the National Retail Dry Goods Association.

Results for the refrigerator departmental activity shows that the loss on refrigerators alone as compared with the whole appliance department was even slightly worse than that shown by the reports for the entire major appliance department.

In 1938 the average loss shown for refrigerator department as determined by the Controllers' Congress study was 10.4%, as compared with 4.5% loss in 1937, and an average loss of 5.2% in 1936.

The controllers' own "interpretation" of the study points to several factors as being responsible for the poor showing of the appliance and refrigeration departments. It says: "The Mechanical Refrigeration Department experienced a shrinkage of gross margin from 30.4% in 1937 to 28.1% in 1938. The contributing factors were loss in markon, an increase to 6% in markdowns from 4.5% the year before, and an expansion of workroom (installation and service) costs. . . .

"Gross margin was low in Other Major Household Appliances, despite

departments fared best of all the departments in this division with respect to sales volume comparison with 1937. Each experienced a drop in sales of but 3%, which compares favorably with the 7% sales loss of the store as a whole. . . .

"In sharp contrast to these experiences, the Mechanical Refrigeration Department lost 30% in sales volume and Other Appliances 20%. These volume dips were the two highest of all the departments for which data was gathered. . . .

"The decline of the average sale in the fall in Mechanical Refrigeration shows the influence of the special promotions employed to bolster up volume. . . .

"Sales productivity on the basis of selling area for the departments within the division is not high, despite the high average transaction value which some of these departments show.

"Mechanical Refrigeration, with a notably high salescheck, records annual sales per square foot only on a par with such departments as Stationery, Children's Hosiery and Knit Underwear, and less than Candy where the average unit of sale is but \$39.

"Also it should be noted that due to the decline in sales which the Mechanical Refrigeration Department experienced, probably as the most important factor, sales of this department per square foot of selling space dropped sharply from \$62 in 1937 to \$45 in 1938. . . .

"It may also be observed that the Appliance Departments incurred rela-

Typical Refrigeration Department Operating Expenses (% to Sales)

	Group I	Group II	Group III	Group IV	Group V
Administrative	8.6	8.6	8.0	7.5	7.5
Occupancy	4.2	2.6	4.6	5.7	6.1
Publicity	4.2	5.5	5.1	5.6	6.3
Buying	4.3	4.5	4.7	5.1	4.0
Selling					
(a) Salespeople	13.8	10.6	10.1	9.7	9.2
(b) General Selling Expense	1.7	2.6	2.2	2.5	3.2
(c) Delivery Expense	2.4	1.7	1.3	1.1	0.7
(d) Total Sales Expense	18.6	15.5	13.9	13.6	13.6
Total Operating Expense	40.3	38.9	37.1	38.1	38.2

Comparison of Refrigeration Department Operating Results By Years

	Group I	Group II	Group III	Group IV	Group V
1938	L 12.9	L 8.9	L 9.5	L 10.6	L 12.2
1937	L 8.4	L 2.5	L 3.6	L 4.1	L 3.9
1936	L 4.0	L 2.6	L 4.2	L 5.7	L 6.1

a better markon than was shown in mechanical refrigeration. Markdowns in Other Appliances increased to 6.5% in 1938 from 4.6% in 1937. Another influence affecting the drop in gross margin in this department from 31.2 to 30% was the higher workroom cost, 5% compared with 4.3%. . . .

"Evidencing the large drop in sales experienced by the Mechanical Refrigeration Department, is the lower stock turn rate 3.8 for 1938 compared with 5.1 in 1937 and 5.8 in 1936. . . .

The Gift Shop and the Radio, Talking Machines, and Record De-

tively low occupancy costs, reflecting the compactness of inventory value as well as the system of distribution which depends on manufacturers distributing agencies, or warehouses for a part of selling stock and permitting sales on the floor to be made from sample. . . .

"One factor, which may account for the poor showing which these departments make has seemed to warrant the criticism which has often been directed against the department. This factor is the low markon which is suggested by or partially controlled by the manufacturers of mechanical refrigerators."

Typical 1938 Operating Expenses For a Major Appliance Department (Exclusive of Refrigerators)

	Group I	Group II	Group III	Group IV	Group V
Administrative	9.4	8.6	8.2	7.9	7.2
Occupancy	4.6	7.9	4.9	6.1	6.4
Publicity	4.8	5.4	6.5	6.5	7.5
Buying	4.5	5.0	4.4	4.6	3.6
Selling					
(a) Salespeople	14.2	10.6	11.4	9.7	7.5
(b) General Selling Expense	2.4	2.9	4.2	2.9	2.8
(c) Delivery Expense	1.2	1.5	1.4	1.3	1.7
(d) Total Sales Expense	17.8	15.9	17.2	14.3	12.6
Total Operating Expense	41.3	42.8	40.9	39.9	37.6

Comparison of Operating Results For Appliance Department (Exclusive of Refrigeration) By Years

	Group I	Group II	Group III	Group IV	Group V
1938	L 12.7	L 12.4	L 11.4	L 9.8	L 8.6
1937	L 8.1	L 6.3	L 4.6	L 6.8	L 3.3
1936	L 5.8	L 4.7	L 2.4	L 3.2	L 3.8

CROSLEY DEALERS

HAVE THE BEST AUTO RADIO POSITION IN THE INDUSTRY

1 THE LOWEST PRICED AUTO RADIO ON THE MARKET AT **\$14⁹⁹**



HERE IS VALUE! It's a sturdy, remarkably performing radio that owners will be as enthusiastic about as the original ROAMIO FIVER. This, too, is a five working tube set with a noise level to give good reception at all car speeds. The edge lighted dial provides sharp visibility. It's a Crosley achievement!

Used car dealers can move their used cars a lot faster when equipped with this inexpensive yet effective set. Experience on used car lots in many cities shows a BIG market if you'll go after it.

2 AN EXCITING IMPROVEMENT OVER THE OLD ROAMIO FIVER AT **\$19⁹⁹**



AUTOMATIC ELECTRIC TUNING,—"feather touch" we call it, is but one of the improvements in this masterpiece, the 5-tube MAGNETUNE FIVER ROAMIO, we offer just below \$20. Illuminated call letters is another. Greater sensitivity, more efficient performance and finer tone mark this a greater success than the FIVER it replaces of last season. It's an easy seller. Nothing like it on the market at its price level—and nothing like its instantaneous finger touch tuning AT ANY PRICE.

3 "TOPS" IN PERFORMANCE AND QUALITY AT **\$24⁹⁵**



SIX TUBE MAGNETUNE SIXER—the best in auto radio. Oscillator coil sealed in glass eliminates mis-tuning from extreme temperature and humidity changes. 2-position tone control is another innovation, new to auto radios. To cap this sensitive "feather touch" automatic tuning offers the cleverest station selector yet devised for ANY radio. It's a Crosley triumph.

The CROSLEY auto radio position is better than last year—when we swept the country with the competition-stopping PUSH BUTTON ROAMIO FIVER. Not content to rest on that achievement the 3 models of the 1939 line offer improved engineering, added features and lowered prices for the BEST selling you have ever enjoyed in this field. See your Crosley distributor or write, wire or phone us.

Prices slightly higher in South and West

THE CROSLEY CORPORATION

POWEL CROSLEY, Jr., President

Home of "the Nation's Station"—WLW—70 on your dial

CINCINNATI

See the Crosley Building at the New York World's Fair

Department Stores

Making a Game of Sales Education With Employes Running the Show Is Big Success With Coast Store

By Florence L. Luman, Educational Director,
The White House, San Francisco, Calif.*

DO your salespeople ever invite you to participate in an educational activity which they are conducting?

Have your salespeople ever suggested that they come in long before store opening to tour departments other than their own in their desire to become better acquainted with the store as a whole?

Do your salespeople say, "Coming to work now is more like playing a game?"

Have your salespeople ever written a letter to your educational department thanking its members for their cooperation and help?

Are your salespeople so interested and enthusiastic about learning more that they may sell more, that "training" in a formal sense of the word has largely disappeared and is replaced by a program of self development, planned and executed by these same salespeople?

These things have happened in our store, and while our program is still growing and is far from perfection, it may interest you to know how the spirit which prompts this greater interest, enthusiasm, initiative, and job pride on the part of our salespeople has developed.

Before we go further, we want to explain that the program which we describe is not a substitute for your educational department. For, today, more than ever before in retailing, when the cost of selling merchandise has increased so alarmingly, there is no substitute for a courageous, adaptable, imaginative, vibrant, understanding, patient, tolerant, expense and sales conscious educational staff.

With guidance, certain phases of our sales educational program are carried on more painlessly, effectively, and productively by our salespeople than by any other division in the store. It started with our ready-to-wear and accessory fashion training.

Employe fashion shows as you know, cannot be held during business hours; so we held ours on Saturday morning, a half hour before the opening of the store. Our people were invited to attend. The shows were, on the whole, good. We put as much thought and effort into them as we would into a show for the public. The notices were inviting with sketches, and lively copy; merchandise was completely ensembled; everything was modeled; the commentator brought a little humor into her patter; there was always a theme or a new angle. The audience was enthusiastic; they were entertained while they learned about current fashion.

But the audiences were always the same group of interested, ambitious people who probably would have come even if we hadn't tried so hard each time to outdo the last show. How to make more of our people really fashion conscious! How to make "Fashion" a topic discussed from the linens and domestics to the men's furnishings departments! That was our problem.

AN UNUSUAL CONTEST

We announced a "Good Taste" contest, with cash prizes for the winners. The contest was open to every woman in the store. All the contestants had to do was decide what type of outfit suited their personalities best, then go through our stocks and select anything they cared to wear so long as the completed ensemble was in good taste.

It was announced that the winners would be selected by popular applause, recorded on an applause machine.

Never before have we known such buzzing, such interest, such whispering of secrets. Ready-to-wear people knew the accessory stocks almost as well as the salespeople in those departments. Accessory people in turn knew the ready-to-wear stocks. For the first time, in the history of the White House Fashion Shows, men became bridegrooms, escorts in tails, or fishing partners in blue jeans.

LINE UP FOR SHOW

The morning of the show found the contestants and audience assembled long before the appointed time. Elevator men, porters, non-selling co-workers, and most important, salespeople who never before had shown the slightest interest, arrived in groups to applaud this friend or that. The men's clothing and furnishings turned out en masse; they had to see "Andy" in a monkey suit. Tea room employees came, for wasn't one of their bus boys a red cap? The beauty salon was well represented, for hadn't they dressed the models' hair and given them last minute make-ups?

That success was our cue! From that time on, all employe fashion shows were put on by the salespeople; and from that time on there was real interest and response.

Shortly after that experience, the White House Fashion Club was organized. About thirty salespeople and heads of stock met and laid plans for the serious study of fashion. Members elect their own officers; administer their own finances; make their own by-laws; and plan their own programs. Now more than one third of our selling personnel are active members.

NIGHT SELLING CLINICS

You will want to know some of their educational activities. As mentioned above, they stage the employe fashion shows, with their own members as commentators, unless they invite one of the executives as guest commentator. They hold evening selling clinics for which there is a supper charge.

It is the members who sell the tickets for these clinics, not the educational department. They supply the educational department with information for fashion manuals which are distributed at these clinics. They hold periodic breakfast meetings at which their own members report on fashion, or to which they invite prominent guest speakers on textiles, salesmanship, consumer movements, etc.

BUYERS TALK ON RETURN

They invite buyers returning from the New York market, or visiting New York buyers, as their breakfast guests and then get first-hand accounts of what is being shown on the Avenue and what is coming into our own stocks. The club is underwriting a course to be given this fall in the "Culture of Fashion."

One of our members in the textile division felt that her department was being neglected and that something should be done to make people recognize the fashion significance of yard goods and to stimulate interest in sewing. This fall, in cooperation with her buyer, we're going to have a "sew your own" contest and fashion show—open to every woman in the store.

At this point you may well ask, "Does your plan embrace only fashion?" In answer let me say first that we have fashion for sale in every department in our store; we want our people to realize that "Fashion" is not a word confined to ready-to-wear and accessories.

'FASHION' A KEYNOTE

We want their selling appeal to be to the fashion acceptance of red enamel pots and pans as well as to the quality, use, performance, and value. In addition to this broader interpretation of the word "Fashion," we have mentioned textiles, salesmanship, and consumer movements as subjects the group has considered.

At the present time, we are conducting tours through our home furnishings division. One of our members suggested that since salespeople have so little opportunity to really know their store, it would be worthwhile to assemble one hour and 15 minutes before the opening of the store in order that home furnishings buyers might be given opportunity

to really display their merchandise to advantage.

This idea has been so enthusiastically pursued that it is arousing the interest and curiosity of the home furnishings salespeople. As a result the club is now planning a membership drive and expects to broaden its activities to cover home furnishings.

MUST HAVE HELP

But don't think that such a group can be started and then left to progress on its own momentum. Management has a very important part in this activity. It must give the club dignity and importance by its support. Our management meets one half of the yearly dues collected. The members of the management attend the meetings to which they are invited. (You see, the shoe is on the other foot now.)

Salespeople want to feel that what they are doing is worthwhile, is recognized, is appreciated, and is important. Only management can satisfy that great want. Management must not only accept its active share in such a program, it must be tolerant of imperfection, patient, and understanding of the time element in effecting results.

We could talk for hours about the many facets and avenues of possibilities that such a technique offers. Members tell their customers about the Fashion Club and don't think customers aren't impressed.

'IT'S FUN NOW'

One girl said not long ago, "It's fun to come to work now. We don't get stale with just selling negligees. My job has become more like playing a game."

A salesperson in the jewelry department said recently, "We have a big job ahead of us. We have to get the home furnishings people interested and then the men's departments. We could help them a lot and they could help us, too. Why we've only scratched the surface." You see they're partners in the business now. They're not just units of production.

This principle which we describe is not confined to a club's program. We have found it effective in handling other types of activities, too. In a salesmanship forum this spring, for which participants paid tuition, it was the salespeople themselves who determined the procedure we followed.

THEY'RE 'SHOPPERS'

They shopped competitive departments just as a service shopper might shop them. They filled out service rating blanks and then in group discussion, analyzed the sales technique. Effective methods were charted and ineffective ones were discarded from the point of view of what should have been done to successfully conclude the sale. This self training had greater force, we believe, than an extended course of salesmanship lectures delivered by a gifted and dynamic orator.

RECOGNITION BIG THING

In closing let us look behind the theory we have described to learn why this program is finding acceptance with our salespeople. We are motivated by a basic law of human behavior—that law which tells us that behind all action there is a want and a belief that what one is doing will help to satisfy that want. Like you and me, the salesperson wants to be recognized; he wants response and a feeling that what he is doing is worthwhile and important. He wants to be appreciated. He wants someone to listen to what he has to say. He wants to feel that he is creative; he craves conquest.

He likes the excitement of playing a game, of competing, and like you and me, he wants the approval of the group. He wants his job to be interesting. He wants job security and peace of mind. He wants the things greater income will bring him and some want greater responsibility and promotion. We believe that our program satisfies many of these wants directly and some indirectly.

We don't offer our approach as the cure-all for all or even many of the problems of training the salesperson to sell more merchandise more effectively. But we know that if we are worthy of management's increasing confidence in our function and if we qualify as leaders in that great art, Human Engineering, then we must never lose sight of that guiding principle in education, "Teaching is not filling a bucket—it is lighting a lamp." This we are trying to do.

"HERE'S WHY THIS REFRIGERATOR
WILL STILL BE WHITE WHEN THIS
LITTLE LADY'S IN HIGH SCHOOL"



WOMEN want to be sure the refrigerators they buy will keep their sparkling whiteness, in spite of household greases, food stains, and general wear and tear.

That's why so many alert dealers and salesmen use this famous blue-and-silver DULUX seal to such profitable advantage. When women see that a refrigerator is finished with DULUX, they know they're getting the full value that the Du Pont reputation assures them. They will listen with interest when you

tell them about the advantages of DULUX—its whiteness retention, its durability, its ease of cleaning. It makes the sale far easier.

Point out the DULUX Seal the next time you talk to a prospect. Prove to yourself how it can be put to work for you. E. I. du Pont de Nemours & Co., Inc., Finishes Division, Wilmington, Delaware.

Visit the DuPont "Wonder World of Chemistry" exhibits at the New York World's Fair and the Golden Gate International Exposition

DU PONT
DULUX
The Modern
Refrigerator Finish

Air Conditioning

Luncheon Club Members Prove Willingness To 'Chip In' For Comfort Cooling System

ST. LOUIS—Increasing opportunities for "plus" business for air-conditioning firms in installations in noontime luncheon clubs, small organizations having private meeting rooms and the like, is evidenced in St. Louis with examples of such possibilities showing in the current air conditioning of the Missouri Athletic Club's lounge room, and the Stack Club's luncheon club headquarters.

The Stack Club is one of the more democratic of St. Louis luncheon clubs and recently spent \$16,000 in building new air-conditioned rooms in a penthouse atop the Ambassador Building at Seventh and Locust Sts. The Stack Club was so named because it formerly met at 717 St.

Brandeis Co. Working On Wide Variety of 'Big Jobs' This Year

LOUISVILLE, Ky.—Emphasis on heavy contract work has been the basis for the air-conditioning activities of the Brandeis Machinery & Supply Co. here this year. Last year the firm had five men concentrating on the sale of Carrier portable room coolers, but this year only one man is so employed, according to W. J. Davis, manager of the firm's Carrier department.

Work now under construction by the Brandeis firm includes Stewart Dry Goods Co. (department store), 120 tons; Lincoln Bank & Trust Co., 105 tons, of which 40 tons is "Freon" and the balance well water; Rodes Rapier Co. (men's furnishings), 28 tons; Herbert Crolle Funeral Home, 8 tons; C. D. S. Drug Store, 6 tons; Grocers Baking Co., Owensboro, Ky., 7 tons (dough retarding room); Louis Apfel Co. (men's store), 30 tons; Mitchell-Baker-Smith Co. (department store), Lexington, Ky., 46 tons; Walgreen Drug Co., Lexington, Ky., 18 tons; Joseph E. Seagrams & Sons (gin ingredients building), 15 tons.

The air-conditioning department of the Brandeis company also handles pumps and Diesel engines including contracts for the complete erection of this type of equipment. According to Mr. Davis, this arrangement keeps the organization busy through the winter months and makes a well rounded all-year operation.

Personnel of the Brandeis company includes Mr. Davis, department manager; W. R. Ward, air-conditioning sales engineer on contract work; Edwin T. George, air-conditioning unit salesman; J. R. Allen and Kenneth Hess, engineers; and George S. Cook, superintendent of construction and erection.

The Brandeis company, which deals in many types of heavy machinery, is housed in a modernistic completely air-conditioned building in an industrial district of Louisville.

Herman Nelson Has New Self-Contained Model

MOLINE, Ill.—A self-contained unit for cooling and dehumidification has recently been introduced by Herman Nelson Corp.

Unit consists of a reciprocating-type "Freon" compressor, water-cooled condenser, evaporator, fan, and motor, all automatically controlled and housed in a cabinet of heavy-gauge steel.

Capacity of the unit is ¾ tons. Sensible heat rating is 6,400 B.t.u., total heat rating 9,000 B.t.u., and air circulation 360 c.f.m.

Window Units Installed In World's Fair House

NEW YORK CITY—The two bedrooms in the "Town of Tomorrow's" No. 1 house have been equipped with "Northwind" model Pleasantaire room cooler units.

Charles St. where a huge stack runs from below street level high in the sky to carry off fumes and smoke from the Terminal Railway tunnel.

In this particular instance the building put up half the cost of the penthouse and its equipment and the members chipped in with the other half. The club will repay the building owners the other half over a period of years.

The Stack Club was started as friendly rival to the Noontime Club over 15 years ago, and has more than ninety members. The new club and its fine equipment was shown off to the wives and lady friends of the members recently in an unusual invitation which read: "For you the Stack Club has probably never been anything but a pain in the medulla oblongata and menace to the serenity of your home life. Here's your chance to see for yourself what a swell place it really is and how it can be counted upon to exert a benign influence on your old man from here in."

Air Conditioning Show In Town of 17,000 Nets Four Quick Sales and 550 Visitors

BEAVER FALLS, Pa.—How air conditioning can be sold in a town of 17,000 people was demonstrated here during the Air Conditioning Show sponsored by the Air Conditioning Bureau of the Electric League of Pittsburgh. Four installations having a total of 66½ connected horsepower were the immediate result of the show and many prospects for future installations were developed.

While the air-conditioning show was in progress educational and promotional meetings were held with various groups, such as Kiwanis, Rotary, and Lions Clubs. Other special meetings included Ladies Day, Merchants Night, and Industrial Executives Night.

Attendance at the show was 550 people, covering the best prospects in the district, and several thousand lines of publicity were published by local newspapers.

Distributors signed two local dealers for air-conditioning equipment while the show was in progress, and a thorough canvass of the towns in Beaver Valley by salesmen resulted in a backlog of prospects.

Up until the time the Air Conditioning Show opened this year only two installations having a total of 7 hp. were in operation in the district.

F. B. Mahon, secretary of the Air Conditioning Bureau states that participants believe that the promotion will pay additional dividends during the balance of this year and for years to come.

Moock To Sell Airtemp

CLEVELAND — Moock Electric Supply Co. has been named distributor for Airtemp packaged air-conditioning equipment in the Cleveland area. The firm's territory will cover Cleveland, Canton, Youngstown, and Akron.

Toledo University Conducts Conditioning Course

TOLEDO—A six-week's course in heating and air conditioning is being held at Toledo University this summer, with local contractors comprising most of the students. Classes are being held on Monday, Wednesday, and Friday.

Spraying Systems Co. Moves

CHICAGO—Spraying Systems Co., manufacturer of various types of spray devices, has moved its offices and plant to new and larger quarters at 4021 W. Lake St. here.

69 Conditioners Sold By N. Y. Dealers In May

NEW YORK CITY—Led by restaurants and retail stores, air-conditioning installations in the territory of Consolidated Edison Co. and subsidiaries totaled 69 during May, to bring the number of contracts for cooling equipment to 241 in the first five months of the year.

Restaurant installations during the month totaled 29, with retail stores accounting for another 11 jobs. Other leaders during the month included hotel public rooms, with six installations, theaters with five, general offices with four, and the World's Fair, barber and beauty shops, showrooms, and department stores with two each.

Tabulated installations, by business classifications, for the year's first five months follow:

Restaurants	73
Retail Stores	49
World's Fair	34
Offices	18
Showrooms	14
Hotel Public Rooms	11
Theaters	9
Department Stores	8
Barber & Beauty Shops	4
Banks	3
Candy Mfg.	3
Misc. Commercial	3
Clubs	2
Funeral Homes	2
Misc. Industrial	2
Doctor's Office	1
Hotel Guest Room	1
Office Building	1
Lecture Hall	1
Drug Mfg.	1
Fur Storage	1



Every Brunner Unit is tested for Underwriters' Laboratories Approval and Carries the U. L. Seal

Basically, a condensing unit is a mechanism for the transfer of heat. The more efficiently that heat is transferred (or dispelled from the refrigerant) the more economical is the refrigeration. To this end, the design of Brunner cylinders and cylinder heads lends a hand. Cast with extra large fin surfaces, the external cylinder area radiates heat sufficiently from the walls to maintain the lowest possible temperature. Similarly is heat dispelled from the large fins of the cylinder heads—and here, by promoting more rapid radiation, gives the added advantage of

a temperature sufficiently low to prevent the circulating oil from oxidizing. In short, while these fin surfaces become hot, extreme temperatures of the ordinary fin designs are avoided, with a consequent gain in overall refrigerating efficiency... Operating advantages such as these are embodied throughout the entire Brunner design. Better investigate Brunner refrigerating and air conditioning equipment today is cutting costs on all types of installations up to 15 tons of refrigeration. Catalog on request. Brunner Manufacturing Co., Utica, N. Y., U. S. A.

The Symbol of **BRUNNER** Dependability

Commercial Refrigeration

Sterilamp Stops Mold In Storage Room Job

DURANGO, Colo.—Use of Westinghouse Sterilamp equipment is said to have effectively prevented mold growth on produce in refrigerated storage for McDonald Produce Co.

Encouraged by the results of the initial experimental installation, the company recently has put two more of the lamps into use to protect perishable produce and keep it in salable condition for longer periods.

In testing the original lamp, 20 boxes of unsalable tomatoes, covered with mold, were placed in a 5 x 7 x 7 1/2-foot room, in which the lamp was installed. Irradiation stopped mold growth on the fruit directly irradiated, it was found, and even tomatoes shielded from exposure in the bottom remained fresh.

Grapes, even in refrigerated storage, usually begin to show signs of mold within five days of the time they are stored, and are generally unsalable at the end of 12 days. Stored in a compartment with a constantly operating Sterilamp, grapes were reported in perfect condition at the end of five weeks.

Bananas were the only fruit on which the lamp had any undesirable effect. These underwent a darkening of the skin.

Installation Duplicates French Wine Cellars, Saves the 'Bouquet'

NEW YORK CITY—Conditions approximating those in the famous wine cellars of France are maintained today in the French Pavilion at the New York World's Fair for the storage of rare wines served in the restaurant.

Temperature is kept at a constant 60° F. at all times by mechanical refrigeration units and cold diffusers.

The artificial "wine cellars" which are located on an upper floor, were decided upon after experts ruled that fine French wines would lose body and bouquet if left in varying temperatures. After experiments by Carrier engineers, cold diffusers and refrigeration were found to furnish conditions closely approximating those at Rheims and other wine centers.

Through the re-use of condenser water, engineers have cut cooling costs at the French Pavilion. The condenser water from the refrigerating units which cool the auditorium and south restaurant is sprayed on the roofs of these areas to remove part of the heat load from these sources. This brings about a considerable reduction in the amount of refrigeration needed.

Coils Part of Walls In Truck System

KANSAS CITY, Mo.—New wrinkle in refrigerated truck construction has been developed by Nathan Baraban, president of the Copeland Refrigeration Co. of Kansas City, commercial refrigeration distributorship.

Mr. Baraban has designed a truck body construction wherein the refrigeration cooling unit surface becomes a part of the walls of the truck body.

Advantage of this design, Mr. Baraban states, is the fact that the refrigeration coils do not occupy any of the payload space in the truck.

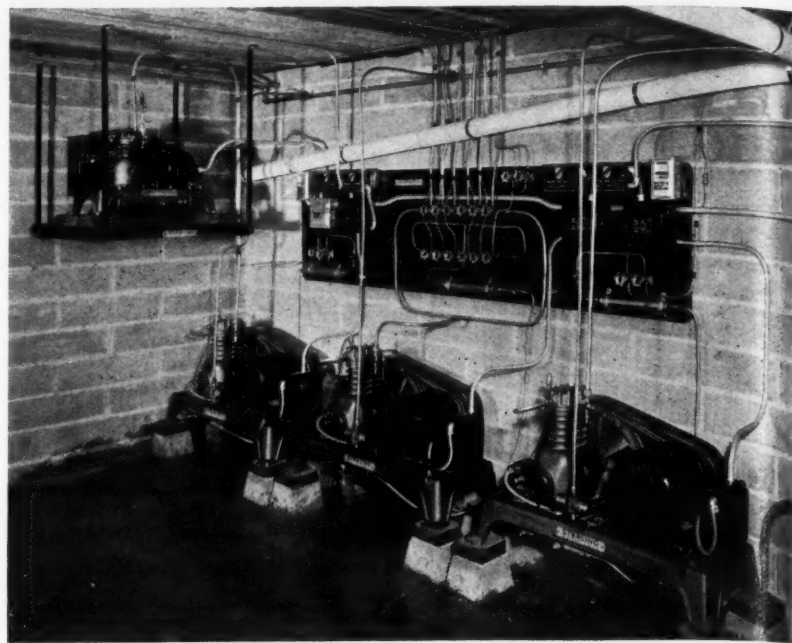
While they are part of the walls, the Kold-Hold cold plates which Mr. Baraban uses in his truck are not installed on a level base. The plates have a certain amount of pitch and still form the body of the truck, the inventor explains.

The truck body used in this design is approximately 12 feet long, 6 feet wide, and 7 feet high. Trucks in which this type of system have been installed are being used for the delivery and distribution of fresh meats.

Milwaukee Distributor To Sell Philco-York Line

MILWAUKEE—Radio Specialty Co. has been appointed distributor in this territory for the Philco-York line of portable air-conditioning equipment. The firm is now seeking suitable dealers to retail the units.

Where Each Unit Has Its Own Job



Neat, compact, and efficient is this installation of Mills condensing units in Theisen's, large Minneapolis market. Individual control valves are provided for both suction and liquid lines. Valve handles are all properly designated.

Minneapolis Market Job Shows How Individual Units Are Used To Advantage

MINNEAPOLIS—A demonstration of how low-pressure refrigerating machines meet the exact food preservation requirements of present day food markets and how by proper installation methods the operating cost is kept at its minimum is demonstrated in the installation of four Mills condensing units in Theisen's market on West Broadway here.

A 1/4-hp. Mills machine, with a suspension mounting (see picture), operates a small freezer 44 inches long by 36 inches wide by 30 inches deep, which is located inside of a large cooler. The machine holds conditions of from 10 to 15° F. in this cooler within a cooler.

The machine in the corner is connected to two 163 Peerless blower-coil units which work in the large cooler that measures 16x18x9 1/2 feet, and in which temperatures of from 35 to 39° F. are maintained.

Condensing unit in the center of the three mounted on the floor takes care of six display cases. The Theisen market has a total of 55 feet of top display case, and 10 feet of double-duty display case. These cases all operate at a temperature of approximately 38 to 42° F.

The other machine is hooked up to two 132 Peerless blower coils, one located in a sausage room 9x12x9 1/2 feet, and the other blower unit in a 9x12x9 1/2-foot vegetable room. The sausage room is maintained at between 35 to 39° F., and the vegetable room at about 40 to 44° F.

Each one of the cases is individually controlled with shut-offs both in the liquid and suction lines (note arrangement on panel board). Also, one of the 12-foot cases is again "sub-divided" into two parts and here the liquid lines are controlled so that one can be defrosted without affecting the other. Each one of the blowers is also controlled both on the liquid and suction lines.

Coolers are all insulated with 4 inches of Falco Wool. The large cooler has two walk-in doors, one being used for a truck arrangement so that "quarters" can be wheeled from the back door into the big cooler. One man is working in this cooler all the time.

New Standards Data on Big Systems Available

WASHINGTON, D. C.—Refrigerating Machinery Standards supplementing the Equipment Standards published in 1938 by the Refrigerating Machinery Association have been issued by the association.

Under the title "Equipment Standards Supplement 'A,'" this 14-page addition lists its contents under such major headings as the following:

Base Specifications for Self-Contained Ammonia Units.

Ammonia Brine Cooler Ratings—showing basic heat transfer curves as a function of brine velocity, mean temperature difference, brine temperature, and brine concentration. A tabulation of the properties of calcium chloride brine and other general information are included.

"Freon-12" Mains—showing tonnage allowances for various line sizes and operating conditions in "Freon-12" suction, discharge, and liquid lines. Other application data is also outlined.

Standard Nomenclature for Reciprocating Compressors.

Informative tables and charts are included to amplify the text of the various sections.

Copies of the new standards are available at the association's offices, Southern Building, Washington, D. C. Single copies are priced at 25 cents, with a schedule of quantity discounts.

Users Prove Everything We Claim for the POLARTRON SYSTEM

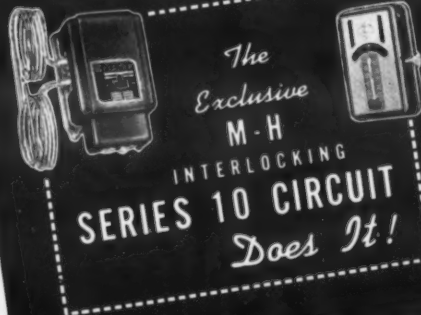
"Since installing your Polartron we have noticed that shrinkage and deterioration of foods has been virtually eliminated. Frosting of the pipes and radiator fins has been entirely overcome. The controls will pay for themselves in a short time." W. O. WHEELER—WHEELER CATERING CO., INDIANAPOLIS, IND.

"Since the Polartron System has been installed, we are maintaining an average temperature of 33 degrees. Coils are always clean and our trimming has been reduced to a minimum." H. H. ROSSMAN - ROSSMAN & PALMER LA GRANGE, ILLINOIS.

"Since your system was installed, the cooling coils have been entirely free from frost and constant temperatures have been maintained within two or three degrees of thermostat setting. We are pleased now to be able to change the temperatures in these fixtures by simply adjusting the thermostat." MILO L. MINKIN - LINWOOD MARKET KANSAS CITY, MO.

"The Polartron System has eliminated our frosting condition and we are maintaining the temperature we want. Our meats seem to keep much fresher for longer periods of time." WM. RICHTER - RICHTER'S MARKET ST. LOUIS, MO.

"A Polartron was installed to correct this difficulty and the room is now maintained at 32 to 35 degrees without difficulty and with not a sign of ice or frost on the cooling surface." LEONARD REED - COONEY REFRIGERATING CO., INC. BUFFALO, N. Y.



MINNEAPOLIS-HONEYWELL Polartron System

CERTIFICATE OF MERIT



Every Ansul Cylinder Individually Analyzed

★ Again and again the Ansul product is laboratory checked. And again before it leaves the shipping platform, each cylinder is sampled, analyzed, tagged: This tag is Ansul's certificate of merit—proof of Ansul certified quality.

ANSUL CHEMICAL COMPANY • Marinette, Wisconsin

THERE IS AN ANSUL JOBBER NEAR YOU

Commercial Refrigeration

Refrigeration Is First Factor In Food Safety, Says Health Director

OAKLAND, Calif. — Refrigeration comes first in the essentials of preservation of food to the consuming public, followed closely by the modern ideas of sterilization of foods, according to nationally famous Dr. J. G. Geiger, director of San Francisco's Public Health department.

"Restaurants and food concession stands at the Exposition," declared the Doctor, "are living up to more drastic health regulations than normal service demands in a large city." Significantly, refrigeration was the first factor of food preservation in his listing of the components entering the subject.

Dr. Geiger's comments, revealing the importance of refrigeration in its relation to public health, came when he commented upon the necessity of waiving certain structural requirements, due to the temporary nature of buildings of the exposition—and refrigeration was apparently the major factor of consideration in bridging this gap.

This report, in which refrigeration plays the major role, has an importance because, in spite of the temporary structure of many factors, more than 25,000 persons have been served in a single day on the occasion of some special function—and but two cases of irregularities involving bad foods have been reported. Two individuals filed complaints, and after very careful and thorough investigations by the Board of Health, neither charge was substantiated even in the slightest degree, it was reported.

53 Seeger Cabinets Find Place In Wide Variety Of N. Y. Fair Exhibits

NEW YORK CITY—Fifty-three commercial refrigerator cabinets and two display cases have been sold by Seeger Refrigerator Co. to exhibitors and concessionaires at the World's Fair here.

The British, French, Italian, Russian, Swedish, Turkish, and Czechoslovakian pavilions are completely Seeger equipped. Additional installations have been made for the Y.M.C.A., Borden's Dairy, Standard Brands, and the Case Industries Bldg.

Thirty-foot cabinets seemed most popular, 16 of these units being installed. Next in favor were the 44 and 53-foot units, each with 13 installations to their credit.

All sales were made by Seeger's New York staff under the personal direction of George McLeer, Seeger sales manager here.

25,000 Crates of Berries Frozen In Alabama

BIRMINGHAM, Ala.—Facilities of Birmingham Ice & Cold Storage Co. were used for the quick freezing of about 25,000 crates of strawberries during the season just closed.

Most active among the packers were Southern Frosted Foods, Inc., of which Ray Hosier is president, and Fresh Frozen Products Co., of which Bert H. Levy is president. The Bama Co., preserver, also packed a quantity of the strawberries.

The berries were pre-cooled before being stemmed by a special stemming machine. Those for ice cream makers and preservers were then sweetened in the proportion of three parts berries to one part sugar and then quick frozen. Berries for pie bakers were individually frozen without the sugar.

The latter were packed in 20-lb. wire mesh cartons, while those for ice cream makers and preservers were packed in 30-lb. tins.

Processed berries brought around 9 cents a pound. The average price to the grower was 2.5 cents per pound.

General Staff of G-E Commercial



HAROLD HULETT



ELLIOTT HARRINGTON



D. W. MCLENEGAN

G-E Commercial Dept. Executives Named

(Concluded from Page 1, Column 4) been added the direction of all sales training and the G-E Air Conditioning Institute.

The product sales division, under Mr. Harrington, will henceforth include five section managers. C. M. Rowland will be manager of the specialty sales section, covering such products as water coolers, room coolers, and display cases.

A. E. Pierce, until recently in charge of oil-fired heating equipment sales, becomes manager of the heating sales section. D. W. McLenegan has been appointed manager of the engineering sales section; L. T. Brockbank will continue in charge of syndicate sales, as manager of the national user sales section; and F. H. Faust has been named manager of commercial engineering.

S. T. Whitbeck will also continue as auditor, in charge of all accounting and financial functions, including order service, billing, credits and collections.

Proposed Wisconsin Law Provides Two Classes of Licenses For Contractors

(Concluded from Page 1, Column 5) in view of the 27 to 1 vote by which it was approved by the senate, would create a "Board of Examiners of Mechanical Refrigeration Licensors" to function as a division of the industrial commission. Its membership would include one industrial commission representative, two representatives of the American Society of Refrigerating Engineers of Wisconsin, and two licensed installation contractors, one of whom shall be a member of the Wisconsin Refrigeration Contractors Association.

Appointments would be made by the governor for four-year staggered terms. Board members would be paid \$10 a day for time actually spent in performance of their duties, plus travel and other expenses.

Duties and powers of the board, as prescribed by the bill, will be to examine the qualifications of applicants, to grant licenses, and for cause to suspend or revoke such licenses. The board shall also prepare and formulate rules and regulations in respect to the construction, installation, alteration or replacement of refrigerating systems and prepare formulae, standards, and specifications for materials, workmanship, and manner of execution of work.

Two classes of licenses would be issued at annual fees of \$15 each, with renewal at the same fee. One class would apply to contractors handling low pressure systems, and

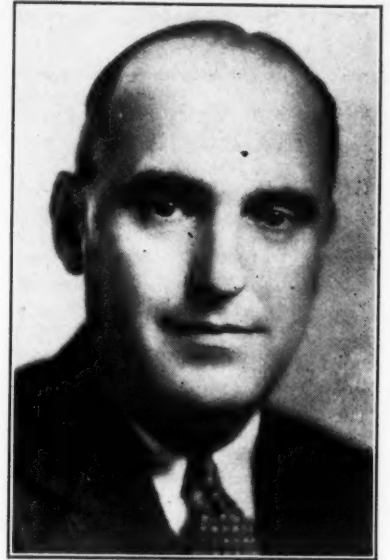
the other to contractors installing high pressure systems. Licensees would be examined and required to post bonds of \$1,000 to guarantee faithful performance and observance of rules and regulations promulgated.

A refrigerating contractor would be required to secure a permit before starting "construction, installation, alteration, or replacement of any refrigerating system." The application for the permit would describe the proposed construction, location of piping, valves, and safety devices, and the name and business address of the refrigeration contractor. On completion of the work, the board would be notified so that inspection may be made. Permit and inspection fees are set by the bill at \$2, but would not apply to "refrigerating systems of 1 hp. or less if such system contains less than 6 lbs. of refrigerant."

Classified as low pressure type systems, calling for Class 1 contractor's licenses, are plants using dichlorodifluoromethane, "Freon-12"; dichloromonofluoromethane, "Freon-21"; dichlorotetrafluoroethane or "Freon-114"; dichloromethane, Carrene No. 1 or methylene chloride; trichloromonofluoromethane, "Freon-11" or Carrene No. 2; dichloroethylene; ethyl chloride; methyl formate; sulphur dioxide; and isobutane.

High pressure type systems requiring Class 2 contractor's licenses are those using carbon dioxide, ammonia, butane, ethane, or propane.

Controls Controls Sales



B. M. HORTER

Mr. Horter will supervise sales of all products made by the Cutler-Hammer Co.

The following penalty is prescribed:

"Any person who constructs, installs, alters, or replaces any refrigerating system, or who fails to obtain a permit therefor, or violates any provision of this section or any rule or regulation of the board made pursuant to the provisions of this section shall be guilty of a misdemeanor and upon conviction thereof for each and every offense, shall be subject to a fine of not less than \$20, nor more than \$50, or by imprisonment in the county jail for not less than 60 days nor more than 90 days."

SUCCESS STORY!

HINSHAW SUPPLY COMPANY

CHARTER MEMBER
National Refrigeration Supply Jobbers' Ass'n
Pacific Coast Refrigeration Jobbers' Association

Refrigeration, Air Conditioning
and Industrial Supplies.
Nationally Advertised
Products.

Nights and Holidays
Phone Main 6083

1316 J Street & Capital 1528
SACRAMENTO, CALIFORNIA
January 25, 1939

**The Texas Company,
Sacramento,
Calif.**

Gentlemen:

We have been selling Texaco Capella Oils exclusively for over two years and have yet to receive a complaint of any kind from our customers.

As we sell hundreds of refrigeration service men their requirements, it is important to have the latest and most efficient refrigeration oil.



We have found Texaco Capella Oils entirely satisfactory.

Very truly yours,
R. L. Hinshaw

**Industrial Supplies
Compressors - Belts**

**Refrigeration Supplies
Parts - Tools**

SHOW-WINDOWS of Hinshaw Supply Co., Sacramento, California. Read Mr. Hinshaw's letter, and observe why he sells Texaco Capella Oils.


R. L. HINSHAW who sells Texaco Capella Oils in and around the Sacramento area. He's a V.P. of the Pacific Coast Refrigeration Jobbers' Association.

INTERIOR of the smart, up-to-the-minute display room of the Hinshaw Supply Co. Note that this organization sells Texaco Capella Oils exclusively.

TEXACO CAPELLA OILS

PERFECTED LUBRICATION FOR REFRIGERATING COMPRESSORS

THERE'S MONEY in lubricating oil. Why not sell a brand that enables you to write us a letter like the one above. Call the nearest of our 2229 warehouses, or write:
The Texas Company, 135 East 42nd Street, New York City, N. Y.

Distributor-Dealer Doings

Grand Rapids Refrigerator Drive Acclaimed as 'Success For All'

(Concluded from Page 1, Column 4)
drawing. In this lottery, two prizes of \$5, four of \$2.50, and 10 of \$1 each were offered.

Tickets for all sales made during the drive were entered in the "grand drawing" featuring the victory dinner which closed the drive. Fifty dollars in cash was awarded the winner of this drawing. In addition, two prizes of \$25, three of \$20, and two of \$10 were awarded lucky salesmen.

All prizes were paid in silver dollars, whose merry clink as they passed over sales counters throughout the city did much to arouse the curiosity of townspeople and interest them in the campaign.

'DOWN TO EARTH' SPEAKERS

Featured at each of the breakfast meetings was a speaker, arranged for by the Modern Kitchen Bureau, who "got right down to earth and spoke the salesmen's language." Speakers included J. Nelson Stuart of Kelvinator, Wil Galpin of General Electric, W. H. Hanna of MKB, Will Stephens of Gibson, Ray Turnbull of Hotpoint, Frank Lyons of Frigidaire, and Sam Vining of Westinghouse.

Pulling power of these speakers and the prize drawings was evidenced by an average attendance of 155. The breakfast meetings started at 7 o'clock, and were always over by 9 o'clock so that salesmen could be up and at their refrigerator business. The final banquet drew 232 diners, in addition to those salesmen who came just for the grand drawing.

As a result of the campaign, the estimated 648 sales made during the same period last year were more than doubled.

Reported sales for the 12 brands represented in the drive were: Norge, 208; General Electric, 201; Kelvinator, 191; Hotpoint, 174; Frigidaire, 145; Leonard, 141; Gibson, 117; Copeland, 60; Westinghouse, 58; Stewart-Warner, 47; Crosley, 26; and Philco, 15.

COMPETITION KEEN BUT CLEAN

Competition among distributors and dealers was heightened by weekly reports of sales standings sent out by the utility to all participants. Despite this spirited competition, Mr. Kastens reported that a feeling of cooperation was manifest among salesmen and that they all seemed to be working together toward a common goal—the promotion and sale of more electric refrigeration.

He also pointed out that during the campaign salesmen found that

through concentrated selling they could not only sell more but also higher priced boxes.

That the campaign had a beneficial effect on all refrigerator dealers was seen in the reported increases of those not actively participating in the drive. Sears, Roebuck & Co., for instance, reported a 100-unit increase over the 94 units sold during this seven-week period in 1938.

Mr. Kastens stated that, on the basis of this campaign, a continuation of this cooperative endeavor might lead to similar campaigns on other major appliances.

UNANIMOUS APPROVAL

Distributors and dealers also voiced their unqualified approval of the campaign as a sales-getter.

Walter Nilsson, Hotpoint distributor, said: "This was the first campaign put on by local distributors which really clicked. Dealers gave us good cooperation throughout the drive. Partly as a result of this campaign, our firm has done 90% of last year's business in the first six months of 1939."

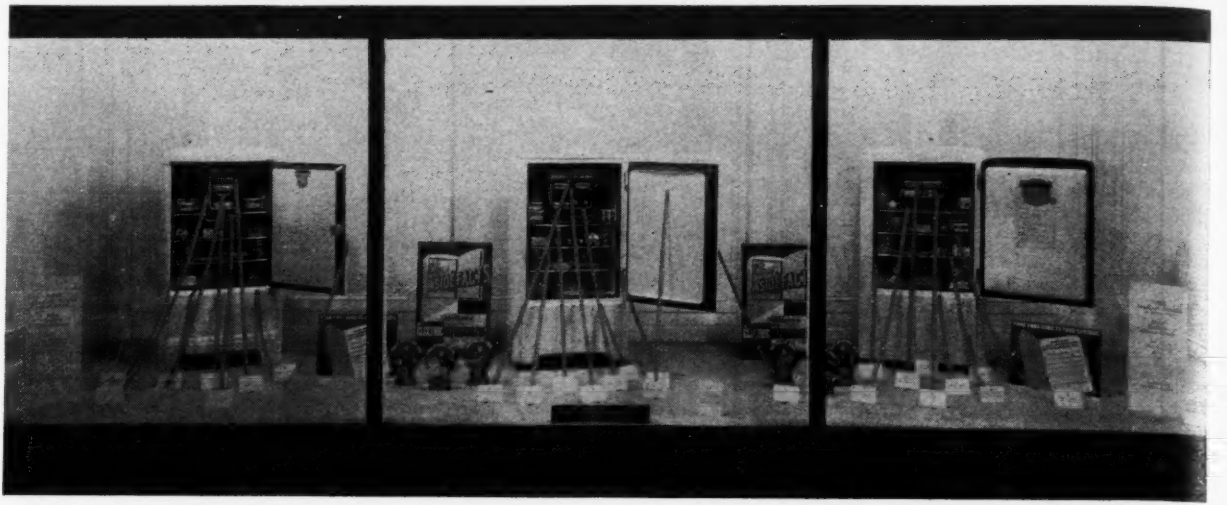
W. L. Jersey, Frigidaire dealer, enthusiastically termed the MKB program the "best campaign Grand Rapids has ever put on." "Dealers are so enthusiastic," he elaborated, "that they are ready right now to start another drive. Not one of my salesmen missed the meetings. They heard good talks, which helped them so much that we doubled our sales for the same period last year."

Citing the difficulties of organizing a cooperative program of this nature, J. W. Miltgen, manager of the Grand Rapids branch of Radio Distributing Co., Norge distributor, explained that he and a few others interested in the advancement of the refrigeration business locally had been attempting to promote a similar campaign for several years, but without much success.

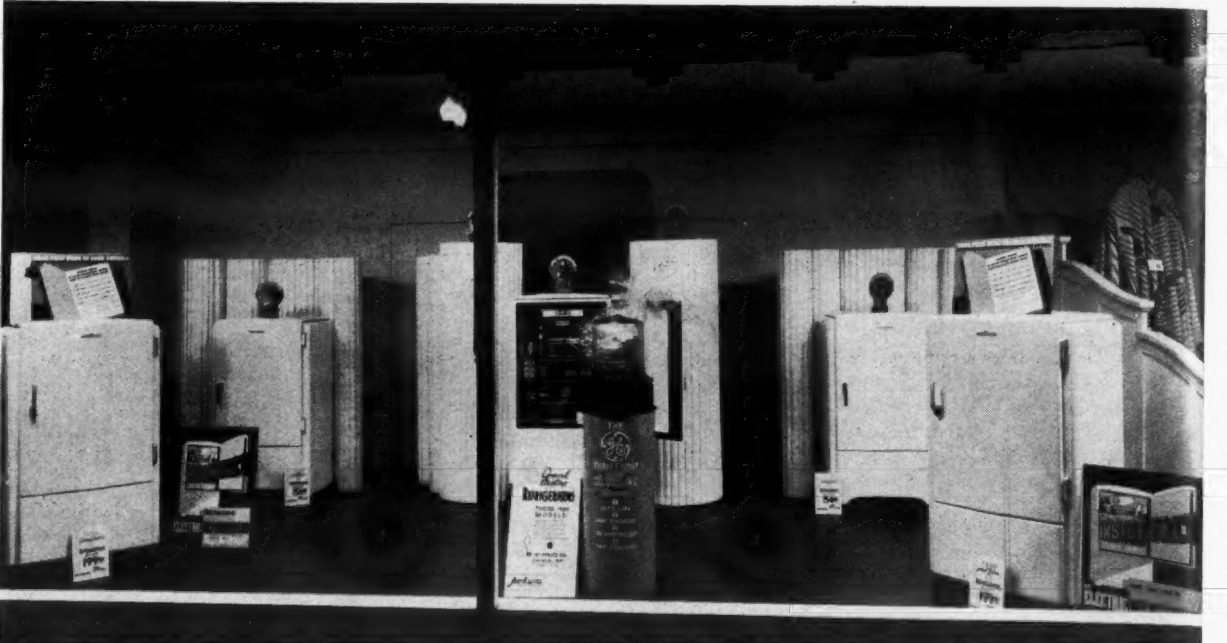
"It was not until the Modern Kitchen Bureau, a neutral and non-partisan organization, stepped in and offered its services," he declared, "that the various manufacturing and merchandising organizations were able to shove aside their petty fears and jealousies and proceed to carry out a carefully planned and intelligently executed cooperative program."

H. S. Morrow, Norge dealer, said: "Such a campaign is bound to do good." Although his own sales were not up to his expectations, he expressed the hope that the success of this cooperative venture would lead to a permanent organization among dealers.

Winners In California Window 'Dress Parade'



Prize-winning window display of Nathan-Dohrmann, San Francisco, in contest sponsored by Electric Appliance Society of N. Calif. Herbert Dasteel, display manager, scored his second win in two years with this layout.



Honorable mention went to Lyn S. Taylor, display manager of Jackson's, Oakland. The window, featuring "inside facts" of electric refrigeration, had a "brown and white color scheme."

Dasteel Scores Again In N. California Dealers' Window Display Contest

SAN FRANCISCO — Employing three makes of refrigerators (General Electric, Frigidaire, and Norge) and emphasizing the selling points of each and the variety of foods that can be stored in modern refrigerators, Herbert Dasteel, display manager of the Nathan-Dohrmann store here, won first place in the 1939 window display contest held by the Electric Appliance Society of Northern California.

Mr. Dasteel won the top prize of \$60 for having the best display in District I (San Francisco, Oakland, Berkeley). Second prize of \$40 in this district went to Charles H. Bishop of Redlick-Newman Co., San Francisco. Other prize winners

were:

District II (Sacramento, Stockton, San Jose): first prize of \$50, Joseph J. Ralph, Breuner's, Sacramento; second prize of \$30, Lowell F. Sheldon, Sears, Roebuck & Co. District III (all other cities and towns in campaign territory): first prize of \$40, C. Harlie Power, C. Harlie Power Co., Livermore, Calif.; second prize of \$20, Claxton White, Claxton White Co., Pittsburg, Calif.

Those receiving honorable mention were: Lyn S. Taylor, Jackson's, Oakland; J. B. Bouckhout, L. Lion & Sons Co., San Jose; R. E. Warmack, Warmack Electric Store, Oroville; Hershel Jones, Holman's Department Store, Pacific Grove; P. Wade, Chris Wade, San Leandro; and T. Treanor, Earl Grady Home Appliance Co., San Rafael.

SAVINGS 'PASS BOOK'

For use in the window display the society sent to each contestant the following signs: "Pass Book to Food Savings" which was a picture of an open pass book showing the following average savings of electric refrigerator owners, taken from a nation-wide survey:

68 cents weekly by Preventing Food Losses

50 cents weekly by Buying Food Bargain Specials

62 cents weekly by Buying in Larger Quantities

73 cents weekly by Reducing Cost of Refrigeration

\$2.50 a week, or \$10.96 per month, saved by an electric refrigerator.

Cardboard figurettes of four Scotchmen supplied humor for the displays, reiterating the theme of the society's campaign ("More Than Ever In 1939 An Electric Refrigerator Pays For Itself") and dramatizing the four major selling points of controlled humidity, more storage space, lower operating cost, and controlled cold.

TWICE A WINNER

Mr. Dasteel won first prize in a similar contest last year when he adopted as the theme of his display the line from the old song, "In the good old summer time."

This year Mr. Dasteel's window sounded a note of preparedness for entertainment and hospitality to hostesses. A sign announcing "Keep Everything for Hospitality—Buffet Entertaining," was backed up by a large variety of edibles and bottled drinks seen packed in the refrigerators.

The Completeness of the CURTIS Line Assures the Correct Equipment for Every Air Conditioning or Refrigeration Need

WHETHER you buy, sell, install or specify air conditioning or refrigeration equipment, there's a Curtis unit that fulfills every requirement. Curtis covers a wide range of markets—makes possible greater sales. And you can specify Curtis products with absolute confidence.

The Curtis Store and Office Cooler fulfills the air conditioning demands of all classes of retail establishments. It's a complete, factory designed, packaged air conditioning unit. It mechanically cools, dehumidifies, circulates and filters the air—is quickly and easily installed with only water and electrical connections needed—adaptable for heating, too. It is offered in 3 and 5 ton sizes.

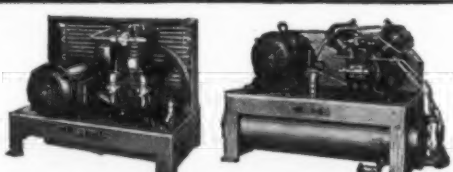
The Curtis Line of Condensing Units includes sizes from 1-6 H. P. to 30 tons air and water cooled—also unit coolers, coils, evaporative condensers, etc. Every Curtis product is precision engineered to deliver economical, efficient, care-free performance throughout an exceptionally long life.

Curtis Refrigerating Machine Company

Division of
Curtis Manufacturing Co.
1912 Kienlen Avenue,
St. Louis, Mo.



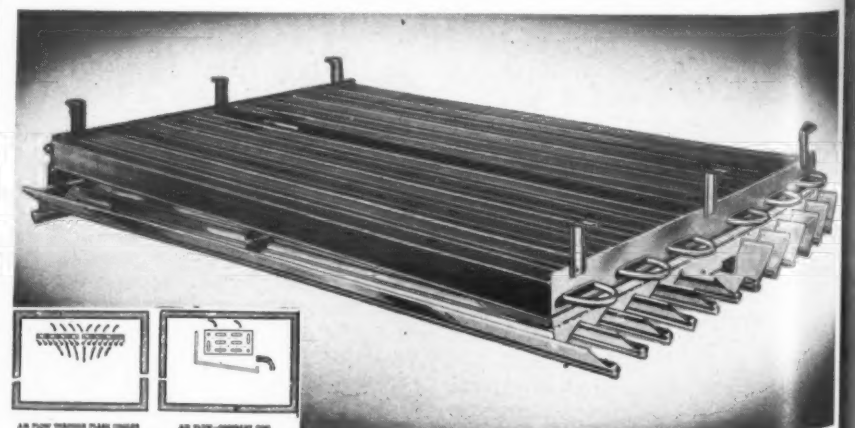
"Builders of Condensing Units
Since 1926"



48 Air Cooled Units—45 Water Cooled Units
—1/2 to 30 H.P.



A typical installation of the Curtis Store and Office Cooler in a New Orleans office.



FLASH COOLER

HIGH HUMIDITY COIL... NO food SHRINKAGE
Cold air DESCENDS VERTICALLY from each row of coils... through individual drip pans
RIFLING ADDS 30% TO THE EFFICIENCY... LOWER OPERATING COST
BUY PEERLESS FOR PERFORMANCE

Ask your jobber for details or write for new catalog

PEERLESS OF AMERICA, INC.

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43-20 34th STREET 3000 SOUTH MAIN ST. 2218 N. HARWOOD ST. P. O. BOX 634
LONG ISLAND CITY LOS ANGELES, CALIF. DALLAS, TEXAS DETROIT, MICH.

Profitable Sales Ideas

'Tailored' Finance Terms End Repossessions For Dealer Who Carries Own Paper

By Robert M. Price

AUSTIN, Tex.—There is only one way to handle your own refrigerator financing without a loss—fit your terms to the individual buyer, believes J. R. Reed, Frigidaire dealer here. With that one rule Mr. Reed has kept volume moving up, and repossessions moving out of sight.

In one of his biggest years, 1937, he did a \$118,000 appliance business and had 1/10 of 1% repossessions. That is about the average loss.

Mr. Reed, who has been in business in the Texas capital since the turn of the century, has a few simple rules of appliance financing, all predicated on "individual financing." Briefly, they are these:

(1) Carry your own paper. Other credit plans make poor salesmen, because each prospect's ability to pay is not examined by the salesman personally, and many sales are lost because of inflexible credit rules. Repossessions are increased when the finance terms do not "fit the individual."

(2) When a prospect asks for terms, find out by "feeling him out" just what terms are best suited to the present income—and the past ability to pay.

(3) Don't go over a 24-month contract period, except in unusual cases. Mr. Reed feels that a 6% carrying charge over a longer period is unfair to the customer as well as the dealer. He tells them so.

(4) If a prospect does not have at least \$10 to make as a down payment

on a refrigerator, he is not ready to buy. Mr. Reed diplomatically tells prospects, "Frankly, you are not ready to buy if fair terms cannot be met."

(5) Discuss contract terms "right from the shoulder." Mr. Reed believes that the right psychology works on the customer's ego; that "pride will pay." He says, "Now look here, I can carry the amount for 24 months, but I pay my bills on the 10th of every month—and I am in no position to carry the amount any longer."

Mr. Reed has found that the average customer feels that it is only fair to reduce the paying period so that Mr. Reed can "stay in business."

(6) When the individual terms are arranged, Mr. Reed attaches a store guarantee to every piece of merchandise he sells to maintain complete customer goodwill. He believes that fair treatment will insure fair payment.

Mr. Reed has "individual ideas" on financing his own business transactions, too. He has not carried a manufacturer's note since 1916. He pays all his bills in "one hunk," because he believes that this is the only way to maintain a perfect credit rating.

"If you owe \$1,000 and pay \$50, you are marked as a \$50 man," he explained, "but if you wait and pay the \$1,000 in one payment, you are at once a \$1,000 man. By doing that

my credit rating is A-1, and I never feel the pinch of creditors. By selling that idea to my customers, I can maintain that credit rating."

It takes a pretty sound business head to keep up this practice of "never splitting a bill," and it may not work for all business men. For the canny Mr. Reed it is a financial rule that has meant success.

"Naturally," he said, "refrigerator customers cannot pay the whole bill at once, but the part they do pay—and the regularity of the payments—establishes their credit rating. Convince them that they should buy when they are able to pay within a reasonable time and credit of the customer and the dealer will improve."

"The process of buying is such that a man has ample time to prepare for the purchase. A woman starts nagging about a year before the average husband consents to buy a refrigerator. During the 'nagging period' he has ample time to prepare himself for the eventual purchase. There is no excuse for a man not being able to meet our terms. We accept no excuse, because our terms are fair—but flexible."

'Friendship Service' For Summer Guests Makes Dealer's Store Popular

LACONIA, N. H.—Sales to summer vacationists follow the "friendship service" offered by Ralph H. Smith Co., appliance dealer.

Under the "friendship service," summer guests are invited, free of charge, to use the store as a place in which to meet friends, check bundles, use the telephone, or receive phone messages.

"In case your wife forgets to tell you about 'that dozen eggs' she needs, by her calling us and your coming in here to see if you have a call, we may be able to save you an extra trip to town," the store's invitation says.

Words Speak For Themselves In Sales In Contest Which Guarantees 40 New Prospects Per Week

CLAYTON, Mo.—"Words, words, words..." usually implies much ado about nothing, but to Weber Brothers Refrigeration Co., oldest Frigidaire dealer in St. Louis County, words have meant a welcome boost to appliance sales, an increased number of personal contacts with prospective customers, and a greatly enlarged mailing list.

All this was accomplished through the simple expedient of a "Jumble-word" contest sponsored in a suburban weekly newspaper. In each issue of the paper during the contest period, eight or 10 words with their letters so jumbled as to make them difficult to recognize were scattered inconspicuously among the various advertisements.

After contestants had picked out and deciphered these words, they were to fit them together into a sentence describing some service or feature of the Weber company. For example, one of the sentences used was: "Weber Bros. is the oldest Frigidaire dealer in St. Louis County."

This sentence then had to be brought or mailed to the Weber company within a certain time limit in order to qualify for that week's contest. Many of the several hundred

contestants in each contest brought their answers to the company's showroom, thus giving them a chance to become acquainted with the firm's complete line of products.

One ticket to the Shady Oak theater here was awarded to each of the first 40 persons submitting the correct answer each week. Winners were required to call at the showroom to pick up their tickets, after their names and addresses were published in the following issue of the paper.

So the Weber organization was assured of at least 40 new contacts each week, and usually obtained many more than this through the people who came to the store to submit their answers. And names and addresses for the company's mailing list were provided by the score through the answers of unsuccessful contestants.

Cost of the contest was relatively small, as the newspaper welcomed the reader interest developed by the jumbled words and therefore was willing to make certain concessions. The theater, too, cooperated in lessening the expense, since almost invariably the user of a complimentary ticket brings along at least one paying patron.

'Radio Special' Sells 120 Used Refrigerators

KNOXVILLE, Tenn.—A daily radio broadcast on used refrigerator models sold 120 boxes last year—at a profit—for the East Tennessee Electric Co., Kelvinator dealer here. The regular radio programs are augmented by classified advertisements on "used specials" in the newspapers.

So effective is this type of advertising for this store that prospective buyers phone in to answer the radio offers before the program signs off.

All used refrigerators are sold with a 90-day guarantee. The used box can be traded within a year after purchase for a new refrigerator, full allowance on the purchase price of the old unit being allowed up to \$100, provided the new box retails for over \$200.

Refrigerators taken in trade are reconditioned in the store's own service department. A large assortment is displayed upstairs.

IMPERIAL TOOLS take all the grief out of tubing work

● The remarkable interest in the Imperial tube bending contests all over the country has shown that men who are handling refrigeration and air conditioning work are anxious to improve their tubing connection practice.

An analysis of the methods used in handling these contest problems has shown that good tools are the first essential in turning out a first class tubing job. Imperial tools have been designed to take all the grief out of tubing connection work. With them you can handle cutting, flaring, bending, coiling, and swedging . . . and you can turn out a good looking, tight job without injuring the tubing.

THE IMPERIAL BRASS MFG. CO.
565 S. Racine Ave., Chicago, Ill.

This booklet will give you valuable pointers in tubing connection practice

A new booklet "How to Handle Tubing Connection Work" is now in preparation and will be off the press shortly. It will describe various types of fittings, how to cut, flare and bend tubing and show each step in the handling of a tubing job. Drop us a line and we shall be glad to send you a copy.

You can improve your tubing connection work in THREE EASY STEPS--

1. CUT THE TUBING WITH AN IMPERIAL TUBE CUTTER. With Imperial tube cutters you can cut any kind of tubing ranging from 3/16" to 2 1/4" O.D. quickly and cleanly without flattening the tubing. Also designed so old flares can be removed.

2. SHAPE THE TUBING WITH AN IMPERIAL TUBE BENDER.

Many a good looking refrigeration job has been spoiled because of poorly shaped tubing, but with Imperial tube benders there is absolutely no excuse for turning out a poor tube bending job.

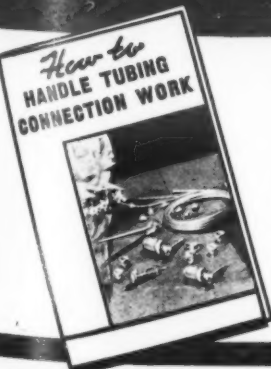
Imperial tube benders are so inexpensive that every

service man should have at least two types in his kit. You can get exactly what you need whether your work calls for spring type benders, heavy duty types or a bender that will also make coils. Ask your jobber about Imperial tube benders or write for catalog.

3. MAKE UP YOUR FLARE WITH AN IMPERIAL FLARING TOOL.

With an Imperial flaring tool you make exactly the right type of S.A.E. flared joint so that you can be absolutely certain of a tight connection. Self centering yoke . . .

No danger of cracking or splitting tube. Equip yourself with one of these inexpensive flaring tools for handling copper, brass or aluminum tubing work.



IMPERIAL Refrigeration and Air Conditioning Products

AIR CONDITIONING & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office;
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New Emphasis: What's In It?

SALESMEN and dealers who attended Frigidaire field meetings at the beginning of the season heard a rhymed slogan repeated and repeated and repeated:

"Sales will go

"To men who know."

All the emphasis of Frigidaire merchandising, promotion, and advertising this year is on the distinctive features of its product, and in particular on its "Cold Wall" principle.

Detailed Specifications Quell Price Talk

The Big Idea is: People are more willing to buy when they know "what's in it." And even more important to Frigidaire executives, who have been appalled by the apparent price-mindedness of refrigerator prospects in the last couple of years, is the belief that quality will beat out price if people learn what constitutes quality.

So interesting is this theory to an industry which at present seems hopelessly caught and jammed between the price competition of Sears-Roebuck on one hand and the evident need for longer margins by dealers on the other that it deserves special attention.

Writing in the June 29 issue of Printers' Ink magazine, Frank Pierce, widely known Frigidaire household refrigerator sales manager, has the following to say about this idea:

It's Product Selling, Not Competitive Selling

"In mapping our 1939 program we decided that our dealers and their salesmen already knew pretty well the story of the advantages of electric refrigeration. Consumers, too, know much of that story.

"What we have to sell today is our idea of the superiority of Frigidaire over other electric refrigerators, the reasons why a family should buy a Frigidaire

instead of some other, and especially the reasons why price should not be the deciding factor. Competitive selling? No, product selling.

"All refrigerator manufacturers and salesmen can and do make the same general performance claims. That is why the price has loomed so large in the eyes of prospects and dealers, and why relatively unimportant gadgets have been featured."

All Makes Seem Reputable, So Price Becomes Paramount

Mr. Pierce, we believe, has put his finger on one of the most important reasons for price-minded buyers. They have come to think of all refrigerators as good, of all refrigerators as alike, and simply shop around to get the one with the most ice trays, the most dishes, and the trimmest interior light for the lowest possible price.

Several years ago, when the industry was faced with almost exactly the same situation, i.e., price-cutting, price-advertising, and price-minded buyers, the News pointed out editorially that practically all makes of that time not only looked alike, but looked like the models of the previous two years.

Refrigerators looked like commodities, and customers were treating them as such in their buying. New styling, it was suggested, might be the answer.

Distinctive Styling Was The Answer Last Time

Apparently a number of people in the industry were thinking along the same lines, because it wasn't long before a number of new models began to appear, distinctively styled. This trend was followed by a period of rising prices, and a disappearance of competitive price slashing among dealers.

In the last couple of years, refrigerators have again begun to seem alike in quality. This has seemed particularly true because advertising has stressed brand name dependability, rather than "what's in it" copy.

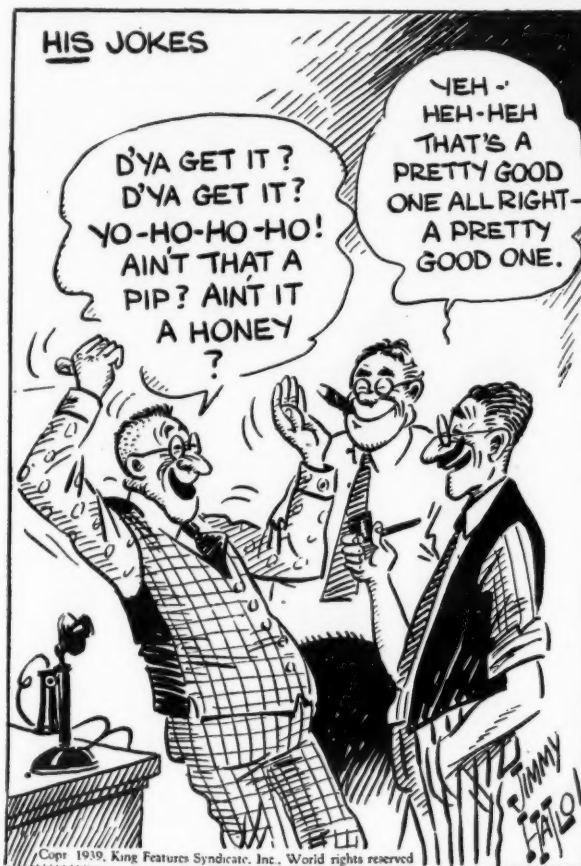
The trouble with this type of advertising is that a number of brand names are well established in the public mind as symbols of quality and dependability. And so prospects again began to bargain.

Cycle Swings Around To Product Selling

Perhaps the cycle has again swung around to the point where individual differences must be stressed. In order to sell quality as against price, it may be wise to tell the prospect what's in the product, as well as what it will do. Show what the insulation and the finish consist of and why they're good, how the compressor operates, who makes some of the component parts and their reputation for service and ingeniousness, where certain materials come from, etc., etc.

The more of such individual details a salesman has at his command, the more possibilities he has of changing the subject from price, and of giving the prospect reasons why the product he is selling is not only superior, but worth the price marked on the tag.

They'll Do It Every Time . . . By Jimmie Hatlo



QUOTED

Rule By a Whim

Harun-al-Rashid walked the streets of Baghdad in disguise and relieved the royal tedium by administering justice as he pleased. The clever rogue who told a good story went off rewarded from the caliph's purse, but the dull rogue who, to a lesser offence, added the crime of boring his ruler was likely to lose his head.

Under the rule of Harun-al-Rashid the caprice of the ruler determined the law—administrative absolutism reigned supreme.

The rise of Democracy was theoretically at least, believed to have eliminated the rule by man instead of by law, but according to Roscoe Pound, dean emeritus of the Harvard Law School, writing in the July Nation's Business, the emergence of bureaucracy within democracy is rapidly bringing on another period of rule by the whim of a multitude of bureaucratic officials.

With the complaint that judicial review seemed dilatory, expensive, ineffectual, and unduly hampering, the so-called experts in bureaucratic administration have sought to dispense with the discretion exercised by courts of equity and substituted their own discretion which is seldom tempered by experience or justice. They would substitute their own will for what we have always considered justice.

If administrative agencies are continually set up to help one side only, justice, being omitted from the program, will also be omitted when the program is put in force. Law will be merely a threat whereby one class will be able to exploit and impose its will on society.

LETTERS

What's the Wet Bulb Today, Please?

6043 N. Paulina St.
Chicago, Ill.

Editor:

Attached is a copy of my letter of today's date to the Chicago Tribune.

It occurs to me that if various newspapers throughout the country could be persuaded to use wet bulb temperature readings in their weather reports, it might emphasize the need for refrigeration in most cases, to get satisfactory dehumidifying for air conditioning.

E. N. BOWLES

Chicago Tribune:

The Chicago Tribune having pioneered the use of all-year-around air conditioning throughout the entire Chicago Tribune Tower building, many of your editorial department have no doubt become familiar with some of the common terms used in connection with air conditioning. Therefore, you must realize that the daily reports of temperatures hour by hour in Chicago do not correctly indicate the actual severity of heat, or lack of heat at any time.

Some newspapers in other cities combine relative humidity with temperature readings, and perhaps by this time it might be in order to publish the actual hourly wet bulb temperature reading which gives the total heat content of the air due to humidity as well as sensible heat. Perhaps in publishing this as a part of the daily weather report.

It might be in order to explain the wet bulb temperature in simple terms, and point out that a comfortable summer wet bulb temperature is about 67°, that even when the thermometer reads 100° the wet bulb temperature may be less than 75° in Chicago, and that a wet bulb temperature of about 80° is about the maximum condition ever reached even in the humid cities of the eastern seaboard and Gulf Coast. Perhaps this suggestion is of interest to your editorial department?

E. N. BOWLES

Reichsfeld Keeps Trying

Laxenburgerstrasse 36, I Stock
Vienna

Editor:

I have received your kind letter of June 10 yesterday with great pleasure and most thankful feelings.

When having arrived over there in America one day, I trust I shall get in a position to prove you somewhat my gratitude.

My situation here has changed again, viz. the way that entering Cuba, Bolivia, and Chile was getting stopped, where again there is a possibility to spend the waiting time in England until the American immigration visa will be granted. Having got at the wrong side of 60 years, however, I can obtain only a so-called visitors Permit, if an English or American subject gives a guarantee for me and deposits an amount of English Pounds 140.

I am on the search now for a guarantor of this kind and I am already negotiating with an English family.

Furthermore I hope I shall be subsidized by the Society of Friends (Quakers) by about £50.—in this matter. I shall still have to raise an amount of 90 pounds somewhere abroad and the two amounts mentioned will have to be deposited with an English bank then.

I feel confident that maybe matters will come to the point the one or the other way next week, and then I shall take the liberty of informing you directly.

You may be assured, dear Sir, that I will do my utmost in the States not to become a burden to anybody and to prove worthy of your help.

Deeply thanking you again, I am, dear Sir,

ALFRED REICHSFELD

Back From Syria

Frontier Refrigeration Co.
904 Main St., Buffalo, N. Y.

Sir:

Attached hereto please find my check for \$5 in payment of a subscription for one year to AIR CONDITIONING & REFRIGERATION NEWS and one No. A-5 air-conditioning manual.

I have just been appointed Frigidaire dealer for Buffalo and Erie county for commercial and air-conditioning sales. I have been Frigidaire distributor for a number of years in Syria, where I made a number of interesting commercial and air-conditioning installations. About a year ago I returned to America to again

resume permanent residence in this country.

Your journal has always proved both interesting and helpful, and I feel lost not receiving it in my weekly mail.

D. ZIMMERMAN

Nachman To Reveal All On Code Revision

The Spohn Heating & Ventilating Co.
1775 East 45th St.
Cleveland, Ohio

Editor:

The Standards Committee of the Heating, Piping & Air Conditioning Contractors' National Association has no intention of keeping the suggested revisions to the A.S.A. refrigeration and air conditioning code a secret.

As chairman, I am surprised that your paper carried such an impression as I distinctly recall that I said that these revisions would be referred to the Board of Directors with a request that the association's official approval be given to them.

GEO. P. NACHMAN, Chairman,
Standards Committee

National Association Is on the Way

Frazier-Simplex, Inc.
Washington, Pa.

Gentlemen:

Just a note to learn if the National Air Conditioning Dealers and Contractors Association has been developed to a point where it will probably become a permanent organization?

Any data you might have to tell us along these lines will be appreciated.

J. EARL FRAZIER

Answer: The association movement has very definitely developed to the point where it will without a doubt become a permanent organization. Both the number of people interested and the willingness of some of the prominent men in the air-conditioning industry to serve on the National Council indicate that there is a great need for such an organization.

The predominant thought behind the movement from the start has been the fact that air-conditioning dealers, distributors, and contractors feel that they are developing a new industry with its own problems.

Because the air-conditioning business incorporates a number of trades, they have not been satisfied to see the business dominated by one of these trades, but feel that each trade is essential to the whole, and that they all must be supervised by firms who understand both the engineering and the merchandising aspects of air conditioning.

Very much interested in the association movement are those who sell air conditioning and are interested in creating a market for their products. Firms making a business of "bidding" on air-conditioning work, and making no effort to sell equipment have shown little interest in the association movement.

At the present time the plan is to formulate a set of by-laws and policies and send them around to all members of the council to study and make changes. Regional meetings will be scheduled during the balance of the year in different geographical areas where men in the industry who are interested can attend. Notice of these meetings will be published well in advance.

Major Appliances

New, Lower Priced Bendix Laundry



Standard Unit Lists For \$30 Less

SOUTH BEND, Ind.—A second, lower priced, model of the Bendix home laundry machine goes to retailers this month. It lists at \$139.50.

The new machine has been designated as the "standard" model and sells for \$30 less than the deluxe version. The two models are completely different in exterior design, although the mechanical principles of the first machine are said to be entirely retained in the less expensive model.

The standard Bendix, like the higher priced unit, has a black and white finish, with the port door opening horizontally but with the two electrical control switches located at the top rear of the unit. The model is enclosed around the base, where the driving motor is located. The perforated washing-extraction drum, as in the more recent units of the deluxe machine, has a porcelain finish.

The motor, time switches, valves, and other important elements of the deluxe model are retained in the standard model. Both models have the same clothes capacity.

Sales promotion material includes a kit incorporating a background for window display, a special direct mail booklet aimed at prospects developed through the deluxe model, a newspaper for house to house distribution, a new presentation chart embodying a seven-minute talk, and follow-up literature.

New Murco Unit Heater Comes In 16 Sizes

WAUSAU, Wis.—A new streamlined model "Murco" unit heater has been placed on the market by D. J. Murray Mfg. Co. in 16 sizes to meet various conditions requiring space heating, either with steam or hot water.

Case is crackle finish, trimmed with chromium strips in front. Heating elements are of heavy wall copper tubes, and fins are of late design. Condenser is full floating to overcome contraction and expansion. Motor is totally enclosed.

Historical Documents Rejuvenated With Electric Ironers

WASHINGTON, D. C.—Certain "wrinkles" in the nation's past are sorely in need of ironing-out. At the National Archives, central repository of documents, a solution has been found which involves neither red tape nor acts of Congress, but the familiar household electric ironer.

Ironers have become essential equipment for rehabilitating papers which have been damaged by water, or which have simply faded and become wrinkled with age. Fifty-eight of General Electric's rotary type models are now in use in the department.

The units were first used on such a job during the Ohio River valley floods of 1937, when thousands of city, county, state, and federal records were left in a water-soaked condition. It was found that the ironer, simultaneously applying heat and pressure, dried out the documents completely, removed wrinkles, and restored faded inks to sharpness.

Surprising discovery was that the ironer often made the writing or printing on the records sharper and more legible than it had been prior to the flood damage. Experiments at the National Archives proved the ironer's value in restoring aged priceless records of the nation.

Range & Water Heater Sales Gain In Ga.

ATLANTA—May range and water heater sales in Georgia Power Co. territory registered sizeable gains over their marks for the same month of 1938, but refrigerator sales dipped slightly, the company's report shows.

Range sales totaled 844, against 596 last May, and water heater sales amounted to 589, as compared with 472 in the month a year ago. Refrigerator sales for the period were 1,229, against 1,398 for 1938.

Irons, toasters, waffle irons, heating pads, and percolators showed sales gains for the month, but declines were evident in sales of washers, pumps, and roasters.

200 Ala. Apartments Get Westinghouse Kitchens

BIRMINGHAM, Ala.—Installation of 200 Westinghouse electric ranges and refrigerators in the "Redmont Gardens" apartments here makes 200 complete electric kitchens available for use in this garden-type apartment. The selection of this electrical equipment for the kitchen also makes the development an all-electric project.

Other electrical equipment, in addition to the complete electric kitchens, include laundry rooms with electric washers and ironers, interior and exterior lighting of the latest modern design, space heating and water heating by electrically driven automatic coal stokers, and floodlighting for the garages.

The "Redmont Garden" project was designed by Raymond Snow, architect of Washington, D. C., and it will be operated by the Jernison Realty Co. Apartments will rent from \$45 to \$72.50. Builder-owner is B. L. Jackson of Washington, D. C.

Four Large-Capacity Refrigerator Models Added To Westinghouse Line

MANSFIELD, Ohio — Four new large-capacity models have been added to this year's Westinghouse refrigerator line.

The models are the E-200-39 and the E-135-39 in all-porcelain, known as "Emperors," and the A-135-39 and A-200-39, cataloged as "Aristocrats," in Dulux-exterior finish.

Model E-200-39 has a net storage space of 20.1 cu. ft., with shelf area of 34.4 sq. ft. Twin units have an ice producing capacity of 216 cubes, or 26 lbs., per freezing. Eight all-metal "Eject-o-cube" trays and two "multi-service" trays are provided. Standard equipment includes two sliding "Meat Keepers," one built-in full width "Humidrawer" storage compartment, and two thermometers, one on each door.

The A-200-39 in the Aristocrat series has the same specifications as the E-200-39, except that the cabinet

exterior is Bonderized and finished in white Dulux.

Model E-135-39 has a net storage space of 13.5 cu. ft. and a shelf area of 26.5 sq. ft. It has a capacity of 216 cubes, 26 lbs. of ice, per freezing, and has eight all-metal "Eject-o-cube" trays, and two multi-service trays, two sliding meat storage drawers, a built-in vegetable container, full width, and two thermometers.

Model A-135-39 has specifications similar to the Emperor series model, except that its ice capacity is 152 cubes, 18 lbs., and it has four all-metal ice trays. Exterior finish is of Dulux.

All four models have "Sanalloy" evaporators, tray releases on all ice trays, all-porcelain food compartments, and hermetically sealed condensing units, and "True-Temp" cold control.

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New Products

Design Changed In '39 Chelsea Fan Line

NEW YORK CITY—Several changes in design aimed at increased efficiency have been made in Chelsea Fan & Blower Co.'s line of "deluxe" attic fans this year.

The fans are manufactured in sizes from 24 to 60 inches, and are finished in enamel, with frame work of light gray and fan blade in red. Engineering changes in the 1939 line include:

External orifice for greater air delivery; die formed blades; ball-bearing motors and pillow blocks; specially constructed Kingston-Conley fan duty motors; thermal overload protection on all motors; rubber-mounted belt tension device for quiet operation; and square steel frame with self-supporting base for easy assembly.

The fans are now shipped in solid plywood boxes, which can be used as part of the attic suction box, reducing cost of installation. Ratings are certified by Texas Engineering Experiment Station, A. & M. College of Texas, in accordance with standard test code of National Association of Fan Manufacturers and A.S.H.V.E. Fire Underwriters' approval also has been given the units, which may be financed on either FHA or EH&FA terms.

MUELLER uses SYLPHON BELLOWS



Because they know
"A Good Bellows
is the Heart
of a Good
Packless Valve"

Mueller engineers will tell you that Sylphon Bellows are dependable, rugged and long-lived... that they banish packing problems entirely, provide a permanent seal against leakage.

If you use refrigerating equipment, why not get the faultless service, the "Life Insurance" of Sylphon Bellows, in a valve that will cut your service costs?

If you manufacture refrigerating equipment, valves, thermostats, compressors, why not build this same "Life Insurance" into the vulnerable points in your products? Let us make recommendations.

Write for Bulletin NO-511.

THE FULTON SYLPHON CO.
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Representatives in All Principal Cities in U. S. A. and in Montreal, Canada and London, England

Variable Flow Control In New Beer Faucet

MINNEAPOLIS—New direct draw beer faucet and rod assembly incorporating a variable flow control which is said to permit use of gas or air pressures high enough to balance internal barrel pressure and maintain brewery carbonation has been introduced by the Cornelius Co.

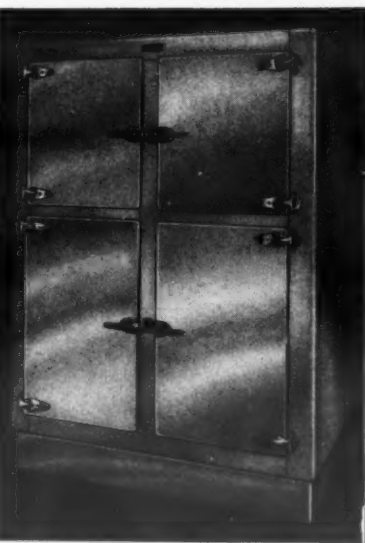
It is claimed that beer can be drawn without waste, even under unfavorable conditions, with an increased profit of from \$1 to \$2 per half-barrel.

Streamlined inverted cone valve within a specially designed nozzle causes beer to flow in a solid round stream, it is claimed, contributing to control and formation of a thick, creamy head. Warm-up during intermittent drawing is reduced by use of a dual-tube tap rod construction, exposing a minimum of metal to room temperature. Less than half an ounce of beer is outside the keg at any one time, it is claimed.

Design is sanitary and easy to clean, and disassembly is accomplished without tools. Low position of the faucet valve is claimed to eliminate after-drip, and leaves no place in which the stale beer can accumulate.

Internal diaphragm is said to seal beer from the working parts, eliminating sediment accumulations and preventing beer from coming into contact with parts of the faucet exposed to the air. Tap rod is of a special alloy which is claimed not to require plating or tinning.

The faucet and rod assemblies are available in a number of types to fit any direct draw cooler, including those using a permanently mounted faucet and flexible barrel connection.



Model 350—25 Cu. Ft. Net Capacity.

New G-E Attic Fan Is Ceiling-Type Unit

BRIDGEPORT, Conn.—A new development in attic ventilation utilizing a ceiling-type fan 52 inches in diameter has been announced by General Electric's appliance and merchandise department. This fan was designed to combine large air movement with extremely quiet operation.

New G-E six-blade up-draft attic ventilating fan draws air from the house upwards into the attic through a large grille and discharges it to the out-of-doors through open windows or louvers. It is also suited for installation in offices and other commercial establishments as a regular ceiling-type fan.

The new fan has been especially developed for installation in bungalows, cottages, and homes provided with an attic above the living and bedrooms. For a typical installation, the fan requires an opening about 5 feet square through the ceiling of the upstairs hall into the attic, and an expanded metal grille to cover the opening. A 5-foot square box, that can be made of plasterboard, with cross support for the fan, is placed over the opening in the attic floor.

Operating cost is said to be approximately one cent an hour. Free air delivery from the fan is more than 11,000 c.f.m. and the maximum velocity 900 f.p.m.

When the fan is installed in a special housing for home ventilation, its maximum air delivery when exhausting through a 52-inch aperture in the ceiling is slightly more than 8,000 c.f.m.

Fan blades are of oak, and metal parts are finished in black enamel for attic use, or electroplated bronze for office use. List price of the fan is \$99.50.

Shreveport Firm Producing Ventilating Equipment

SHREVEPORT, La.—Shreveport Engineering Co., Inc. has on the market the "Bar-Brook" line of attic ventilators, air circulators, and window ventilators with capacities from 4,100 to 45,000 c.f.m. Units have cast aluminum blades, venturi throats, aluminum doors, and are complete "package" equipment.

Stewart-Warner Adds Smaller Water Heaters

CHICAGO—Two water heaters with capacities of 15 and 30 gallons respectively have been added to Stewart-Warner's line of equipment.

Designed for the minimum and medium hot water user, the water heaters include all features of previous models in the company's line. These include special heat trap, cold water inlet and special curve baffle, insulated and electrically welded tanks, hermetically sealed top and bottom immersed type units, automatic thermostats on each heating element, convenient drain valve, and Dulux exterior finish.

Other water heaters in the company's line range in capacity from 30 to 66 gallons.

Installation Kit For Hotpoint Heater

CHICAGO—Hotpoint has prepared a special installation kit for use with its 2-gallon "voguelette," to tap into regular cold or hot water lines. Price of the kit is \$1.50 net to dealers.

The kit consists of a coil of copper tubing 1/4-inch in diameter, a cut-off valve, and a fitting for clamping to the opening bored in the pipe line. One end of the tube is connected to the water line through a pressure adjustment valve, and the other end is connected through the cut-off valve to the cold water inlet of the water heater.

Steel Shim Stock Available In 6 x 50-Inch Rolls

LONG ISLAND CITY, N. Y.—Laminated Shim Co. is now offering an assortment of the most frequently used thickness of precision steel shim stock in an "economy carton," newest kit of which consists of four 6 x 50-inch rolls of stock in thicknesses of .001 to .005 inch.

Carton stands on a self-easel or may be hung on the wall, and shim stock is pulled through a slot and used as needed, avoiding waste, wrinkling, or handling damage, and saving time.

Aerial Built-In on New Philco Radios

FRENCH LICK, Ind.—A built-in aerial system, which does away with the need for aerial and ground wires and requires only a simple plug-in for operation, features the 1940 line of radio and television receivers shown by Philco to its distributor-dealer organization at its recent convention here.

Carried through in the entire Philco line, the built-in aerial system does away with the necessity for installation. Three interdependent features combine to form the system—a newly developed, self-contained loop aerial, new "Loktal" tubes, and the "R.F. Stage," which also utilizes a powerful television tube in its operation.

The aerial is inside the cabinet, and permits the radio to be used wherever wanted. The R.F. Stage uses a new television tube, developed by Philco engineers, which is said to triple its amplification power.

Every 1940 Philco also is built to receive television sound. When used with television picture receivers, sound can be transmitted from the television receiver to the radio without use of wires or connections between the two receivers. No wires or plug-in of any kind are needed. All that is required is conventional tuning with a special push-button or control, as with standard broadcasts.

The company's "remote control" feature, introduced last year, is continued in the 1940 models.

A total of 43 models is included in the line, including four record-player models. Radio-phonograph models include an "inter-mix" record changer, which permits changing of 10 and 12-inch records, mixed, and will take up to 14 records at one loading.

Home radio line includes nine console models and 11 table and compact models; nine models are in the farm radio series; and 10 radio-phonograph combinations. Three portable radios and one radio-phonograph combination head that field for 1940.

Gar Wood Home Heating Unit Convertible For Ventilating

DETROIT—Production of two new home heating units designed especially for operation in smaller homes has been announced by the air-conditioning division of Gar Wood Industries, Inc.

New model 80 gas-fired heating and air-conditioning unit provides automatic gas heating, humidifying, filtering, and forced circulation in winter, and air filtering and ventilation in summer. Features of the unit include "teardrop" firebox, fuel economizer, steam-type humidifier, air filters, multiple-vane power blower, and approved gas burner.

New model B-120-W is a hot water boiler-burning heating unit, fired by a new type oil burner that is claimed to provide a stabilized flame. The unit has small boiler water content, quick boiler pickup, and longer flue gas travel, it is claimed. The unit utilizes the counterflow principle of heat transfer, whereby coolest gases pass through tubes immersed in coolest water, hottest gases through tubes in hottest water.

Gloekler "Reach-in" REFRIGERATORS in STAINLESS STEEL—"The Lifetime Finish".

Sizes from 25 to 68 cu. ft. Net Capacity

Permanently beautiful... everlasting durability and brightness... The acme of sanitary perfection, non-corrosive... impervious to all food acids.

STAINLESS STEEL available in all models—inside and out; or in combination with gleaming white porcelain.

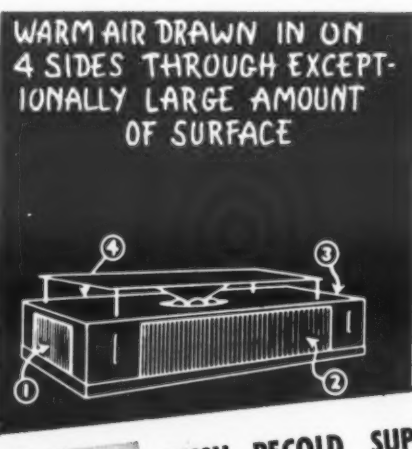
PORCELAIN and DULUX Models also available—porcelain inside and out, or with Dulux exterior. Models in Dulux inside and out, also available.

Write for Complete Catalog of Display Cases and Refrigerators

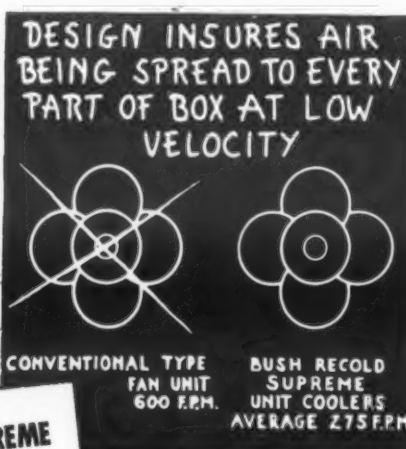
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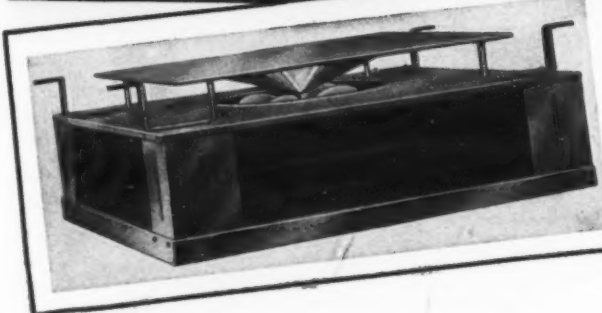
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4 SIDES THROUGH EXCEPT-
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OF SURFACE



DESIGN INSURES AIR
BEING SPREAD TO EVERY
PART OF BOX AT LOW
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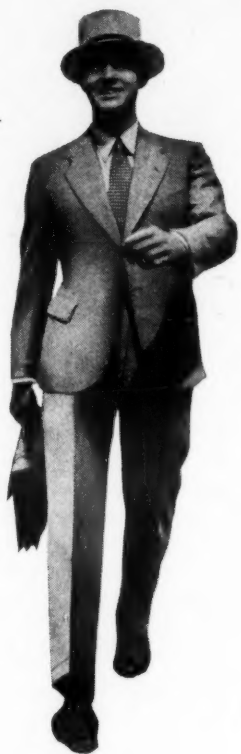
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distinct advance in forced air
evaporator design—provide per-
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cities. Write for your copy of
the new Bush catalog which de-
scribes these efficient coolers and
other Bush Finned Tube Products.



JUST A SALESMAN



Air Conditioning NEEDS SALESMANSHIP

JIM WHEELER is a salesman. Just a salesman.

Being a salesman is the only job he knows. That's all he's ever done.

And he makes a pretty good living at it—making the payments on his house regularly every month—meeting his life insurance premiums—keeping three kids in school—buying the missus a new coat every second year—and driving a this-year's two-door sedan.

Jim has no hallucinations about ever becoming a millionaire. He discarded that idea long ago.

But he is confident of always being able to make a fair living—for Jim has a wide acquaintanceship, a host of friends, and enjoys

the confidence of lots of people who have previously bought things from him and whom he regards as his customers.

Jim has a following.

IN the past he has sold many things—automobiles, real estate, insurance. But for the past several years he has sold major electrical appliances.

First he sold washing machines, then radios, and added refrigerators and ranges to his line. Later he discovered the possibilities of better commissions in selling commercial refrigeration—compressors, display cases, water coolers, walk-ins, beverage coolers.

And all the time he has made a pretty good living. He has heard of WPA—but it has never meant anything to him. All he knows about WPA is that some people down the street are on relief.

WITHIN the past couple of years Jim's attention has been attracted to air conditioning.

Here is something he could sell—if the product is right and the price is right. He has his eye, particularly, on "package" units.

Jim is no engineer and has no desire to become one. Just a salesman. He wouldn't know how to use a slide rule.

He doesn't know engineering—but he does know *people*. And, after all, it is *people* who buy things.

Jim knows how people live, what they need, what they want, and what they can afford to pay for it. And he knows how to sell them what they need.

Jim is accustomed to turn-downs. He gets a

lot of them. Every night when he plans his work for the next day, he knows that many of his calls will not be immediately productive.

But he also knows that some of them will bring results. For he operates on a law of averages. While he gets turn-downs, he also gets orders—and he gets a lot of them, too.

THE air-conditioning industry needs such men as Jim.

To devote a decade to estimating, figuring, calculating, engineering, and talking about air conditioning may possibly be one way of selling it. Maybe so, maybe not.

But Jim's method is more direct than that. He perceives a need on the part of a prospect. He knows how to make his approach—tell his story—and, most important of all, how to ask for an order.

Salesmen of Jim's type can be of a lot of help in marketing air conditioning.

Jim can sell.

HE doesn't subscribe for the 50-cent magazines nor does he belong to the Book of the Month Club. He reads the local daily and some of the 5 and 10-cent publications—and, first and most important of all, he reads his own trade paper, AIR CONDITIONING & REFRIGERATION NEWS, which comes every week.

Air-conditioning manufacturers who feel that their products need more creative salesmanship and who want to get in touch with Jim Wheeler—and there's a lot of Jim Wheelers—may reach him effectively through his trade paper—the NEWS.

He not only reads it, he studies it.

Air Conditioning & Refrigeration News

"The Newspaper of the Industry"

Smoke Damage Serious In Air Conditioning Fires; Dirt In System Greatest Hazard

(Concluded from Page 1, Column 5)
of combustible materials entering the recirculating ducts.

If this system were installed in accordance with regulations of the National Board of Fire Underwriters, the ducts are properly constructed of incombustible material, they are accessible for inspection and cleaning, protected where in the vicinity of combustibles, lined and lagged in part with incombustible materials, and provided with automatic fire dampers at floors, fire walls, and partitions.

The recirculating duct openings (in this perfect system) are covered by screen of small mesh so that it is impossible for other than dust or lint to enter these ducts. The filters are incombustible, kept clean, and protected by a sprinkler system actuated by a manually reset thermostat which is also connected to automatic dampers, cutting off the plenum chamber and stopping the fan.

Steam coils for heating are properly protected and brine is utilized for cooling. According to the speaker, there have been no fires in connection with air-conditioning systems installed according to these standards.

WHERE HAZARDS EXIST

Mr. Loughead believes that air-conditioning engineers and contractors should have an understanding of where potential fire hazards exist in any cooling system. According to the speaker, these points are the fan, the discharge or supply duct system, the return duct system, the fresh air inlet, duct lining, filters, and direct expansion cooling coils constructed with solder.

The fan should be so located and arranged that ready access is afforded for repairing, cleaning, lubrication, and inspection. One or more controls, readily accessible, should be provided so that the fan may be promptly shut down in case of fire and an automatic fire detecting device should also perform this function.

Because air supply openings are seldom near the floor small pieces of paper and other combustible materials seldom enter these openings. It is possible that dust will collect in these ducts, depending on the efficiency of the filters.

Certain types of filters which permit the passage of oil soaked lint should not be used since there is a possibility of combustible materials lodging in these ducts; and in any event, means for periodic inspection and cleaning should be provided, the speaker said.

RETURN DUCTS IMPORTANT

The return or recirculating ducts may present a fire hazard much greater than any other part of the system, Mr. Loughead said. When the openings from the conditioned areas are at or near the floor, this, together with the direction of the movement of air, may invite the tossing of burning cigarettes, bits of paper, and other combustible debris through the grille openings; therefore the return grilles should be provided with inspection and clean-out openings so they may be kept clean.

The mesh of the screen or grille should be made as small as possible without reducing the efficiency of the system, and in new designs this may be accomplished by increasing the duct inlet areas. Recognition should always be given to the added possibility of a fire originating anywhere in the conditioned area being drawn through these ducts, involving any combustible materials within the system and then being conveyed into all parts of the building.

FRESH AIR INTAKE

The fresh air inlet should be of fire resistive construction, used for no other purpose, and the opening to the outside should be located well away from any possible exposure to alleys and areaways where burning materials or smoke may be taken into this duct and distributed throughout the system.

Ductwork installed in the building should be constructed of incombustible materials and separated from woodwork and other combustibles. Materials used for lining or lagging should be incombustible, the speaker said. Even though the materials used should not be highly combustible under ordinary conditions, the possibility should be recognized that they may burn vigorously in the presence of air movement in the ducts.

FILTERS

While certain types of filters are incombustible in themselves, their function is to collect dust and lint which are combustible.

Another type consists of a revolving screen which passes through oil. This type may present an added hazard, allowing an unusual amount of oil soaked dust and lint to pass through the filter and be deposited in the discharge ducts. All of these types are more or less hazardous, even when clean, on account of the oil, Mr. Loughead asserted.

Another type has built-in units consisting of cloth and cotton or cellulose so arranged in zig-zag manner as to present a large surface to the air, and while no air is required in connection with these filters, they are combustible and a source of fuel should a fire reach them. A cloth of spun glass, which is incombustible, is now available for this type of filter and is probably the least hazardous of any filter on the market at the present time.

The ultimate aim of the filter manufacturer is to discover a liquid which will not burn and at the same time possess all the filtering qualities of oil.

Steam coils located in the main duct for heating the air are usually of the fin type and should be located well away from combustible materials.

REFRIGERANT COILS

Many refrigerant coils are made up with solder which generally has a relatively high melting point but nevertheless would fail under actual fire conditions, releasing the gas which may be explosive or toxic.

SMOKE DETECTORS

The speaker reported that several manufacturers are developing devices for detecting smoke and the National Board of Fire Underwriters is sponsoring tests of this equipment. These devices are used to shut down blowers, close dampers, sound alarms, and perform other necessary functions to prevent the spread of fire and smoke by the air-conditioning system.

FIRE WALLS

Because one of the basic principles of fire prevention and control is the use of fire walls, it has long been realized that air conditioning which entails the piercing of these fire walls and floors would offset much of the effort that has been made to reduce the areas which may be involved in a fire. The actual regulation of theaters, motion picture studios, paint spraying, etc. came about only after a loss of life by fire in these occupancies and it is hoped that lessons such as these will not be necessary in order that the installation and use of air conditioning may be properly regulated, Mr. Loughead said.

NO LOSS OF LIFE

While there is no record of loss of life associated with improperly designed systems at this time, the fire loss and smoke damage has been considerable.

The speaker was able to cite only a few instances of fires in air-conditioning systems out of the thousands of systems operating in this country. No statistics were given to show whether or not air-conditioned buildings present a greater fire hazard to the insurance companies than building which have no conditioning equipment.

Fires cited by Mr. Loughead were:
1. Detroit department store—\$22,000 damage. Fire started when workman ignited oil filter with an acetylene torch. Most of the smoke and heat backed out fresh air intake after fans were stopped thereby reducing damage.

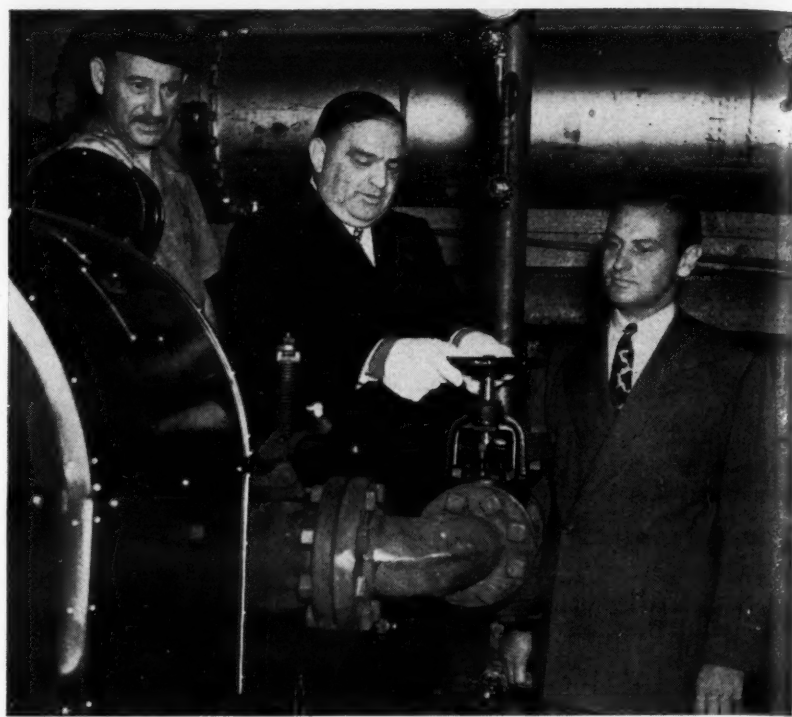
2. New York City theater—(damage not stated) burning of rubbish in an areaway directly under discharge duct caused smoke, sparks, and heat to be discharged into the balcony.

3. Los Angeles office building (damage not stated) when janitor discovered smoke caused by burning duct lining it was necessary for him to go from basement to tenth floor roof to shut off fan.

4. Minnesota schoolhouse—damage \$150,000 (March 1939). Conditioning system installed between combustible roof and incombustible ceiling of third floor. Fire was transmitted to school rooms by supply ducts when burning brands from roof boards passed through the ducts.

5. Detroit (Suburban theater). Burning Christmas trees in an alley

'Little Flower' Plays Engineer



Fiorello H. LaGuardia, mayor of New York City, assists Chief Engineer Mike Murphy (left) in turning on the new 450-ton Carrier air-conditioning system at Lord & Taylor's Fifth Ave. store as Walter A. Hoving, the store's president, looks on. The system will serve all the fashion departments. Ducts run through stockrooms behind selling enclosures.

caused small loss when smoke entered fresh air intake of system.

6. Texas schoolhouse (several years ago). Fire starting in a pile of kindling wood outside the building entered fresh air intake of ventilating system and destroyed the building.

7. Holyoke, Mass.—Textile plant. Smoke from a tar kettle on roof entered fresh air intake of conditioning system and damaged supply of yarn.

8. Detroit—Suburban residence—Smoke from a burning floor sander entered forced air heating system causing considerable smoke loss.

9. Detroit department store—1938. Damage \$110,000, entirely due to smoke. Fifteen sprinklers opened, controlling the fire, which started in duct system. The fire department is reported to have taken several employees down ladders from the second story windows.

This fire was evidently fed by an accumulation of waste paper scraps, lint, and other refuse both in the discharge and return ducts and might have been ignited by a cigarette thrown into a return duct or the plenum chamber. Examination of the supply ducts showed an accumulation of oil soaked lint and examination of the return ducts showed sales slips, gum wrappers, and cigarette butts in the horizontal returns.

SMALL SYSTEMS RECOMMENDED

Mr. Loughead stated that a simple way by which the hazard of spread of fire and smoke through a building may be effectively reduced is to install one or more small systems for each floor in place of one large system serving several floors.

The speaker recommended that fire doors be installed in ducts where they pierce a fire wall or floor. He said that the general attitude of the air-conditioning industry has been that this was an insurmountable problem until actual illustrations were presented, and it was shown that in many installations such cut-offs would not be necessary.

Sprinklers were recommended to protect all filters, as well as the use of some type of smoke detector.

Hadley Becomes Executive Of Management Firm

INDIANAPOLIS—Earl L. Hadley has resigned as advertising manager of the refrigeration division of Philco Radio & Television Corp. here to join Associated Engineers, Inc., management consultants of Ft. Wayne, Ind., as vice president.

Mr. Hadley will act as sales promotion and advertising counsel in his new connection.

Mr. Hadley had been advertising manager of the home appliance division of Fairbanks, Morse & Co., and when Philco acquired that part of Fairbanks-Morse business he retained the same position.

Previously Mr. Hadley had been advertising manager for the Grigsby-Grunow Co., when it was manufacturing Majestic radios and refrigerators.



BLOWER WHEELS

"HAVE CLARAGE MAKE THEM!"

Every year we ship to builders of air conditioning units thousands upon thousands of Clarage Blower Wheels and Assemblies.

This smaller equipment is designed with the same skill characteristic of the larger Clarage apparatus—just as carefully fabricated and tested.

And we have sizes to meet ALL REQUIREMENTS—with slow speed operation insuring SILENT PERFORMANCE.

May we have your next inquiry?

CLARAGE FAN COMPANY
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Dept. AC-4 Beloit, Wis., U. S. A.

Stoker News

Stoker Makers Declare Federal Spending Policies Keep Retail Prices Too High; Study Long-Range Promotion Program

FRENCH LICK, Ind.—New Deal spending policies managed by political Houdinis can never be substituted for private payrolls, in the opinion of E. C. Sammons, vice president of the Iron Fireman Stoker Co. of Portland, Ore., who, as president of the Stoker Manufacturers Association, asked the group to take a strong stand against federal taxation and spending at the association's annual meeting here last month.

At the closing sessions of the convention a resolution was passed, stating that "this association is opposed to the continued program of our national government attempting to spend us back to prosperity, resulting in a mounting burden of taxation with its ultimate reflection in the cost of merchandise which we sell."

Mr. Sammons criticized the government spending program which makes it impossible for stoker manufacturers, dealers, and distributors to give the public the benefit of savings in manufacturing and selling costs which would be possible if it were not for heavy taxation.

Principal activities of the association during the coming year will be to encourage wider use of stokers for bituminous and anthracite coal.

In line with this proposed activity executives present gave consideration to a long range national advertising

and public relations program which had been prepared by Marc G. Bluth, secretary of the association, and the advertising committee. While action on this program was deferred, the group will meet again in October to give further consideration to the project.

The convention was also addressed by Julius K. Luthe, president of the Perfex Corp., Milwaukee, who voiced the need for complete stoker fired heating units; A. R. Stock of the Sinclair Coal Co., Kansas City, who spoke on the use of slide films in stoker selling; H. J. Spear, assistant general sales manager of the Koppers Coal Co., Pittsburgh, who outlined methods of cooperation between the coal and stoker industries; Paul Weir, president of the Illinois Mining Institute, who discussed stoker coal preparation; and Clyde E. Williams, director of the Batelle Memorial Institute, Columbus, Ohio, who asked the manufacturers for better research.

The meetings were concluded at the annual banquet which was addressed by Barton R. Gebhart, vice president of the Chicago, Wilmington & Franklin Coal Co. Mr. Gebhart eulogized stoker manufacturers for the great strides that have been made in industry employment, both in manufacturing and selling, in recent years.

May Stoker Sales Show Small Gain

WASHINGTON, D. C.—Stoker sales for May, 1939, reported by 101 manufacturers to the Bureau of the Census were slightly higher than sales reported by 112 manufacturers for the same period of 1938. May sales totaled 5,238 units in all classes, as compared with 4,969 units sold in May of last year.

Sales for the first five months of 1939 were 18,814 stokers, against 17,404 sales reported in 1938. Sales totals for the January-May period of both years were still well under the all-time high of 1937 when 24,795 stokers were sold during the same months.

While gains during May were made over May of last year in all classes, greatest advance on a percentage basis was found for domestic anthracite stokers, which advanced approximately 20% over the previous year.

Stoker Psychologist

Dr. H. C. McComas, president of the McComas Coal Co., Baltimore, distributor for Century oil burners and anthracite stokers, now spends a portion of his time lecturing to clubs throughout the country. Subject of these lectures is not heating—but psychology.

A onetime Congregational minister, Dr. McComas later joined the faculty of Princeton University, and lectured there on psychology for many years. Recently he has "retired" from teaching to manage an extensive coal and automatic heating business in Baltimore.

Business men who call on Dr. McComas at his Baltimore office will find him equally conversant on "the normal personality" and on automatic heating equipment.

Robbins Appointed Conco Manager

MENDOTA, Ill.—M. F. Robbins, Jr. of Brockton, Mass., has been appointed eastern divisional manager of Conco-Sampsel Stoker Corp. He will be in charge of both sales and service for the company's domestic and commercial stokers, oil-fired air conditioners, and conversion oil burners.

For the past five years Mr. Robbins has been eastern sales manager for Norge's heating and conditioning division, and prior to this was eastern representative for Tim-Zor Corp.

Busser To Sell Anchor Stokers In Pennsylvania

LEWISBURG, Pa.—Busser Supply Co. has taken on distribution of Anchor coal stokers in several Pennsylvania counties. David Alspaugh is manager of the department.

ASHVE Broadens Research Activity as It Extends Cooperation To More Schools

(Concluded from Page 1, Column 5) ductwork will be the subject of studies to be made at Lehigh University, and another cooperative project will be carried on at the Case School of Applied Science, at Cleveland.

For the first time in the history of the society a research program will be undertaken at the Massachusetts Institute of Technology. Subject of this study will be acoustics in air conditioning.

Corrosion of materials will be investigated at Michigan College of Mining & Technology, dust elimination from air will be studied at the University of Minnesota, and air friction studies will be carried on at the University of Wisconsin.

At the University of Pennsylvania the research project embraces the investigation of a new theory of psychrometry which is not based on Dalton's Law, but is following a new theory relative to the composition of air and water vapor.

Treatment of disease in operating and recovery rooms will be studied at the University of Pittsburgh where special attention will be paid to the application of fever therapy.

Cooperative research projects now extend to several branches of the Federal Government, Mr. Fleisher said. One of the most important undertakings for the coming year will be a study of ventilation in ships, in cooperation with the United States Navy at Washington, D. C.

Investigations will also be made of air pollution and air purification in cooperation with the Federal Government and with a number of city governments throughout the country.

New structures, built on the roof of the society's research laboratory at Pittsburgh, will be devoted to a study of heat and solar radiation through glass blocks, in an effort to gain fundamental data on this subject for use by the air-conditioning industry.

Activities of the research committee will also include investigations of radiation and its relation to comfort. Mr. Fleisher stated that, in spite of the fact that this subject had been under consideration by the society for a number of years, interest in the properties of radiant heat and the proper use of radiation was still the subject of many questions and no little controversy.

The project on air conditioning in industry will be continued; new studies will be made of the heat load through various wall sections; the committees on solid fuels and insulation will continue their activities.

Mr. Fleisher pointed out that the society will continue to gather data on subjects relating to heating, ventilating, and air conditioning which may be considered fundamental by the research committee. He pointed out that while certain subjects investigated during the past year had been considered too limited by some members of the society, he believed that a great deal of fundamental data had been gained from these investigations.

Plan Salesmen Awards For Laundry Drive

(Concluded from Page 1, Column 2) members that promotions mapped for Washer-Ironer Week will include a national window display contest, with a top prize of \$500 for the best window, a second prize of \$300, five prizes of \$100, and 10 of \$50.

To get manufacturer and distributor salesmen interested in the contest and the promotion, awards will be offered to the salesmen who sell to dealers having prize-winning windows.

Urging manufacturers to cooperate actively in the campaign, Mr. Gallagher said that, while definite results of such a promotion were difficult to gauge, sales records showed that October, the month the drive was staged last year, was the first month to show an increase over a corresponding 1937 month.

The association voted to conduct the second annual Washer and Ironer Show at the Stevens hotel here next January, in cooperation with the exhibit put on by the National House Furnishings Manufacturers Association.

Standards committee of the association reported that it is now working on the development of tub size standards, and that, upon its request that Underwriters' Laboratories make changes in the standards on ironers, UL has decided not to approve non-automatic ironers. A report also was made on the development of rollstops on wringers.

New Link-Belt Line Eliminates Shear-Pin; Improvements Shown At 3-Day Meeting

CHICAGO—"Further developments of functional design, both in engineering and appearance, are characteristic of the Link-Belt line of residential and commercial stokers for 1939," declared J. E. Martin, manager of the stoker division of the company, during a three-day conference of distributors held here recently.

High point of the three-day meeting was a banquet at the Palmer House at which Alfred Kauffman, Link-Belt president, acted as master of ceremonies.

Color of the new Link-Belt models is maroon, trimmed with chromium and black. The transmission compartment and inside of the hopper are sprayed with an aluminum-color rust resisting compound. The hopper lid is rigid; and the louvers for air intake are located in the back panel instead of at the side.

An outstanding feature of the 1939 line is the elimination of the shear-pin by means of a built-in overload protection device which rings an automatic Load-Signal if it becomes necessary to open the cleanout.

The Air-Meter regulates the amount of air supplied to the fire in proportion to the thickness of the fuel bed at the time of firing. After initial adjustment, this device is said to need no further attention.

The Link-Belt variable intermittent drive has been continued in the

current year models. This transmission provides finger-tip control, eliminating the necessity for changing belts.

Retort and tuyeres are cast from a chrome alloy that is resistant to heat and abrasion; tuyeres are sectional to permit expansion and contraction without cracking; the air duct and coal tube have been combined into a single unit to facilitate installation, and smoke-back prevention is effected without the use of external pipes.

Sells Five Stokers—Then Orders Carload

CHATTANOOGA, Tenn.—Based on experience gained in marketing an original order of five stokers, the Bryan Coal Co. has placed an order for a full carload of 53 Delco stokers to satisfy market demands during the current selling season.

The Bryan organization is conducting an aggressive activity program this year with no seasonal let-up. Exterior of their business office and warehouse has been painted white and the showroom features a cut-away view of a Delco stoker.

Sales methods employed by the company are based on having coal solicitors canvass for stoker prospects.

DEALERS-DISTRIBUTORS

Large well-rated manufacturer, with national organization, will appoint several distributors and dealers to complete merchandising setup. Complete line of bituminous and anthracite automatic burners, nationally advertised, competitively priced, backed by extensive promotion. Write us for information and sales analysis of your territory.

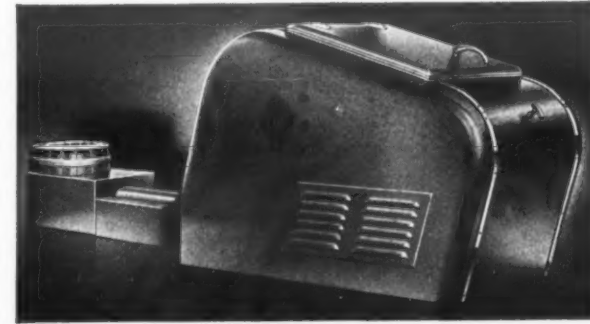
LINK-BELT COMPANY, Stoker Division
2410 W. 18th St., Chicago, Ill.

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Combustioneer —to Make Sales for Dealers Today

Combustioneer officials were pioneer dealers in automatic coal heat. From actual selling experience they know what prospects want in an automatic coal burner. That's why Combustioneer has what it takes to make sales today. Eye-appeal—loads of it! Exclusive features that dramatize Combustioneer's superior heating and money-saving advantages.

Precision-built quality that prospects can see and appreciate. Prices that make Combustioneer the "buy"—the big value of the year. Mail the coupon today for Combustioneer's new Profit Plan—including Package Price with controls and localized sales helps. Make more sales with Combustioneer this season.



Combustioneer
AUTOMATIC COAL BURNER

MAIL THIS TODAY

COMBUSTIONEER DIVISION, The Steel Products Engineering Co., 118 Dakota Ave., Springfield, Ohio.

Send your new proposition to:

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Address.....

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Commercial Service

Differences Between Brunswick Fountain & Other Makes Analyzed For Servicing

By Arch Black and Dean C. Seitz

Testing Brunswick Fountains

Each Brunswick fountain, before being shipped from the factory, is connected to a compressor of the proper size and the entire equipment for the installation is put in operation and the necessary adjustments made. After this, a test report is made out and sent with the fountain on which is listed the regulating valve settings, head pressures, and other pertinent information which will be of importance to the installation and service engineer. All settings should be checked from this report and the following temperatures should be maintained:

Bulk compartment	8° to 13° F.
Brick compartment	0° to +5° F.
Carbonated and sweet water	38° to 40° F.
Syrup rails	50° F. or less
Dry storage	38° to 45° F.
Salad unit (dry storage)	35° to 40° F.
Salad unit (water bath)	32° to 37° F.
Refrigerated back bar units	35° to 40° F.

with switch settings as are given in Table 1 (July 5 issue).

Installation

When the creamer unit is constructed, all of the tubing in the evaporator is sealed in the insulation with the exception of that from the Brunswick instantaneous cooler.

When the fountain is received in the field, the only material to be installed is the copper tubing which must be run from the manifold salad unit and back bar refrigerator to the condensing unit.

It is suggested that hard drawn copper tubing should be used in making the connection between the above mentioned units and the compressor. This is in order to pass code requirements.

Where local or state refrigeration codes do not require the use of hard drawn tubing, it will be permissible to use soft copper tubing and the necessary tees, fittings, etc., which will be required to connect the various parts of the systems to the condensing unit.

Condensing Unit Location

The condensing unit should be located as centrally as possible to insure short liquid and suction line runs, free from oil traps. Provision should be made for an ample amount of cool air in the case of air-cooled units.

Connecting Lines

When all equipment has been located, the refrigerant lines are run to the service valves located on the outside of the refrigerated equipment. The liquid and suction lines to the various compartments are run to flare tees and a single 3/8-inch liquid, and 1/2-inch suction line is run to the condensing unit.

Use lines of the same size as those mentioned on the "Running Test Report," supplied with each job. Install the refrigerant surge tank adjacent to the compressor, being sure that the surge tank is installed in a horizontal position and that the lowest point of the surge tank is higher than the suction inlet of the compressor.

Details of Fountain

When a complaint is registered on refrigeration equipment, there is no particular difficulty in effecting a remedy if the trouble has been properly diagnosed. Before a proper diagnosis can be made, a complete knowledge of the system is essential as well as an understanding of the function of the various control systems that may be in the system.

Therefore, when rendering service on a soda fountain, if the service engineer does not know all the details of the refrigeration circuit, it is quite likely that he may come to wrong conclusions when determining the cause of any trouble reported. Attention is called to this because the reader will have noticed that in previous articles on several instances there has been a similarity of the suggested remedy for a given complaint in soda fountains of different manufacture. Such a similarity, however, only exists when there is a similarity in the design of the refrigeration circuit and controls used.

In the Brunswick system, not only is there a difference in design, in the method of controlling the respective circuits that may be on the fountains, but the controls, including expansion valves, are entirely different from those previously mentioned. There are no solenoids in this system, the pressure regulating valve differs to some extent from that used on other fountains, the expansion valves are non-adjustable, a flooded type instantaneous water cooler is used, etc. Therefore unless the service engineer has a complete understanding of the function of these respective items, he may not render satisfactory service even through the complaint registered may be the same.

When the customer calls, all he does is to register a complaint, "the ice cream is soft." However, the procedure to be taken to effect a remedy may differ depending upon the system in a given fountain and the controls used. Consequently, it is very important that the service engineer study carefully and know in detail the system to which he is rendering service and have a full understanding of what may be expected from the different controls in the system.

There will be a similarity in effecting a remedy on certain complaints registered on Brunswick fountains as has already been described for other fountains, and this should be kept in mind. Only an explanation of the controls and the service in general will follow as it applies to the Brunswick fountain.

EXPANSION VALVE

On many of the Brunswick fountains may be found Detroit Lubricator thermostatic expansion valves. On some of the more recent fountains will be found thermostatic expansion valves manufactured by

Did You Miss the First Instalments Of This Series of Articles on Soda Fountain Refrigeration?

If so, here is good news! The entire series will be published in book form soon after the last article appears. The type matter is now being rearranged in book-page size (6 x 9 inches) but it will be several weeks before the series is ended.

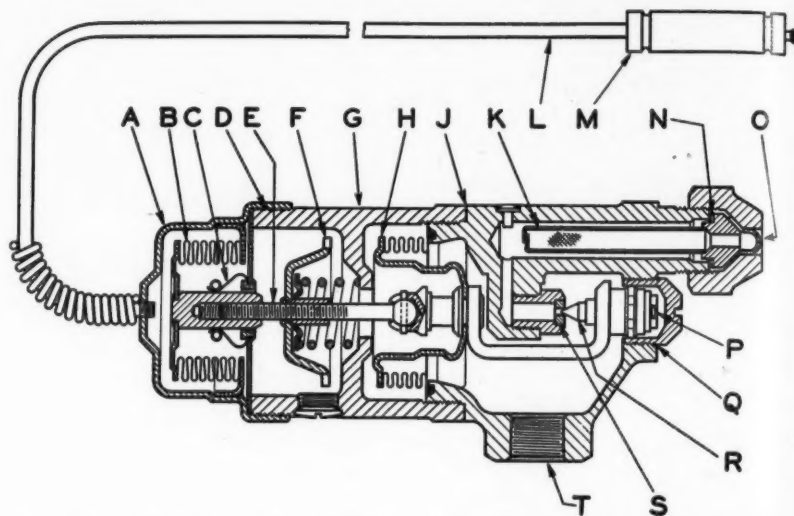
Forty pages of the manual are already completed and a limited quantity of press proofs have been struck off. These 40 pages, stitched into a folder, include the first 10 instalments which were published in the News Oct. 19 to Dec. 28, 1938.

Here's how you may obtain the first 40 pages at once:

(1) Send a new or renewal subscription to AIR CONDITIONING & REFRIGERATION NEWS for one year. Price \$4.00 (Foreign \$6.00). You will receive the preprints of 40 pages at once, also similar preprints of the entire series on Soda Fountain Refrigeration. This offer expires Aug. 31, 1939.

(2) Or, send 20 cents in stamps or coins for the folder containing 40 preprinted pages only, as described above.

Fig. 1—Detroit Lubricator Expansion Valve



Cross section of Detroit Lubricator No. 674 thermostatic expansion valve.

A—power element; B—power element bellows; C—anti-chatter device; E—push rod; F—factory adjustment (674); G—stainless steel extension; H—body bellows; K—inlet strainer; L—capillary tube; M—feeler bulb; N—strainer gasket; O—inlet connection; P—needle swivel; Q—plug hermetically sealed; R—delubaloy needle; S—delubaloy seat; T—outlet connection.

Peerless of America, Inc. In every case, however, these valves are of the non-adjustable type.

The thermostatic expansion valves referred to on other makes of fountains have been of the adjustable type, and in every case where it has been necessary to make an adjustment on the valve in order to obtain desired results in any specific refrigeration circuit, in a fountain equipped with a thermostatic expansion valve, it has been recommended to make the adjustment by the "frost line method."

There being no adjustment on the valve used in the Brunswick fountain, this method cannot be followed. Whether the valve is adjustable or not, it is very important, however, for the service engineer to bear in mind that once the valve is set and operating satisfactorily, it is indeed on rare occasions that any adjustment is required. Too often, without giving due consideration to the possible causes of the complaint registered, some service engineers immediately decide to adjust the valve.

Where adjustable valves are used, it may be found occasionally when a system is just started up, some minor adjustment is required. Never attempt to adjust valves before the system has been in operation several hours, for in the majority of cases, you will find that the valves need no adjustment.

After the system has been satisfactorily operating for a week or a month or more, you can rest assured that if a complaint is registered, you won't rectify the trouble by adjusting the valve. True, you may find the fault in the valve, plugged by ice or foreign matter, or maybe the charge is lost in the power element, etc., but rarely will an adjustment of the valve permanently rectify the trouble, although admittedly at times, adjustment will temporarily rectify the trouble.

The point is, get to the root of the cause, and then effect a remedy. Don't expect that because you adjusted the valve (even although you may notice a difference in operation in a given circuit after an adjustment) that you have licked the problem. Many who read this may very well recollect some occasion when they rendered service and the only thing done was to adjust the valve and they did not hear any further from the customer. Such may be true, but then again the customer's business may have gone elsewhere.

Fig. 1 shows a cross section of the Detroit Lubricator No. 674 thermostatic expansion valve. This valve operates exactly like the Detroit

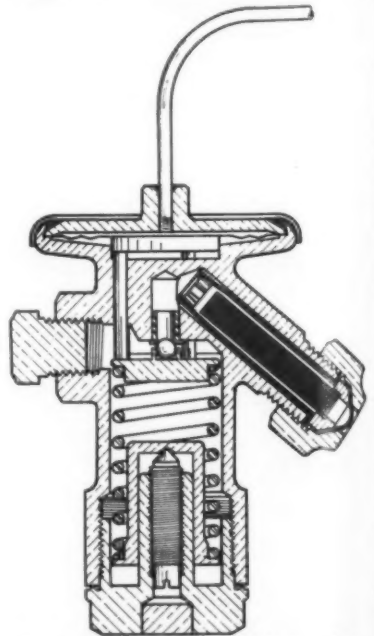
Lubricator No. 673 except that the adjustment is sealed on the inside. It is accurately adjusted at the factory and is never adjusted on the job. The model designations of the Detroit valve used in the Brunswick fountain are the No. 674-M-40 (.078 orifice) methyl chloride or the No. 674-F-55, and either of these valves are standard.

Fig. 2 is a cross section of the Peerless thermostatic non-adjustable expansion valve. The model VM .047 orifice is used with methyl chloride, and the model VF with .078 orifice is used on "Freon" fountains. These valves are similar to Peerless standard model V line of valves, the main difference being that the adjustable feature of the standard valve is eliminated, and provision is made for sealing the super-heated setting once it has been made. No adjustment can be made in the field.

In a previous article, it has been pointed out that each fountain manufactured by Brunswick before leaving the factory is tested and accompanied each fountain is attached a card showing temperatures obtained in the various sections of the fountain, head pressures, etc. These expansion valves, therefore, must pass through the respective manufacturers' tests as well as Brunswick, and it will be rarely found that the valve is proven to be at fault, unless it be due to moisture in the system, the strainer

(Concluded on Page 17, Column 1)

Fig. 2—Peerless Valve



Cross section of Peerless non-adjustable thermostatic expansion valve.

LARGEST AND MOST COMPLETE LINE OF REFRIGERATION AND AIR CONDITIONING PARTS AND SUPPLIES IN THE U. S. A.

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Niagara Aero Condenser re-ordered by 10 ice cream plants, 3 bakeries. Saves 85% of condensing water. Patented duo-pass increases capacity, prevents need for cleaning coils. Spray pump, high pressure centrifugal fan, improves performance, ventilates compressor room (even with doors closed). Write for information on exceptionally low prices on high quality equipment. Niagara Blower Co., Dept. AE, 6 E. 45th St., New York City.



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Appliance Sales Totaling \$100,000,000 Seen As Result of Proposed REA Program

WASHINGTON, D. C.—Possibility of electrical appliance sales totaling \$100,000,000 in the next few years is opened by the new 460-million-dollar Rural Electrification Administration program, REA statisticians estimate. The estimate is based upon the approximately \$100,000,000 in appliance sales made since inception of the REA program among the 1½ million farms now receiving electric service. Although the President recommended expansion of the program to 1½ million rural families "not now receiving electric service

nor likely to receive such service in the near future," REA authorities believe the appropriation may be administered to reach 1½ million families.

Should electric service be extended to another 1½ million farm homes, REA statistics indicate the appliance purchases will be about as follows, judging from present saturation for existing projects:

Electric Irons	\$1,037,500
Radios	1,000,000
Refrigerators	350,000
Washers	700,000
Ranges	46,250
Water Heaters	20,000
Vacuum Cleaners	120,000
Toasters	300,000
Water Pumps	200,000
Electric Motors	130,000
Hot Plates	150,000

These figures are thought to be conservative by the statisticians, because of the rapidly increasing appliance saturation on existing projects. In one recent six-month period, the average customer's appliance purchases increased \$20, REA statisticians say.

Rate at which rural line construction costs are being lowered leads REA to believe that the appropriation might be extended to 1½ million farm homes, instead of the 1½ million stipulated by the President. Average cost is now \$1,000 a mile. At this rate, the new program would create 460,000 miles of line. Figuring three farm families per mile, this would mean addition of 1,380,000 families to appliance dealers' prospect lists. At present, 6,808,872 farms in the United States are without electric service.

How Valves on Brunswick Fountain Operate

(Concluded from Page 16, Column 5) has become plugged, etc. Actually, the only adjustment that can be expected to be made with these non-adjustable valves in the fountain is by moving the location of the bulb of the power element.

As will be noticed from Fig. 5 in the June 28 issue, a change in temperature can be expected by changing the location of the bulb of the thermostatic expansion valve from one well to the other. Likewise a slight change of temperature can be expected in the syrup rail or the dry storage by relocating the bulb of the thermostatic expansion valve. Relocate the bulb as a last resort only, but in the event of a service call, be sure to check and see that the bulb is properly in the well or rigidly clamped to the coil.

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, \$2.00, additional words, four cents each. Three consecutive insertions \$5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS WANTED

MAN, 35 years old, graduate refrigeration and mechanical engineer. Thirteen years' experience with large manufacturers in research, production and all phases of engineering and design, covering household hermetics as well as large commercial refrigerating compressor systems. Employed, but anxious to make new connection. Married. Protestant. Member A.S.R.E. Will go anywhere. Box 1153, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

ENGINEER WANTED. American corporation considering manufacture and sale household and commercial refrigeration and air conditioning equipment Australia requires competent engineer of wide experience to supervise manufacture, engineering and merchandising. Confidential treatment of applications addressed to Box 1157, Air Conditioning & Refrigeration News.

SALESMEN WANTED

SALESMAN with experience in Essex and Union Counties, New Jersey, for complete line of Carrier commercial refrigeration equipment. Communicate with Mr. Wood, THE CONDITIONING CO., 368 Broad Street, Newark, N. J., giving information and compensation expected.

FRANCHISES AVAILABLE

COMMERCIAL REFRIGERATION dealers and direct salesmen—We manufacture meat cases, market coolers, vegetable cases, bakery cases, show cases, etc. Our products compare in appearance and specifications with very best lines, yet prices compete with lowest. We finance your refrigeration sales, including your compressor. Write—MORTON SHOW CASES, INC., Washington Court House, Ohio.

COMMERCIAL LINE refrigerator display cases, walk-in coolers, and refrigerators; also direct draw, mechanically-cooled beer coolers. Sell with Ehrlich compressors or with any other make. Attractive discounts, also financing arrangements to help sell. 70 years in business. Write for full information. EHRLICH REFRIGERATOR MFG. CO., St. Joseph, Mo.

EQUIPMENT WANTED

HOUSEHOLD OR commercial refrigerators wanted; new or late model trade-ins, also quantity of ice cube trays, drip pans and surplus stock of refrigeration equipment. Quote quantity and lowest prices. AUDUBON, 2130 Amsterdam Avenue, New York City.

DOMESTIC REFRIGERATORS wanted—cash waiting; for surplus stock. Also late model trade-ins. Quantities only.

List types, quantities, price wanted in first communication. GUARANTEED REFRIGERATOR SERVICE, 952 Broad St., Augusta, Ga.

EQUIPMENT FOR SALE

GRUNOW PARTS—R & S PARTS COMPANY opens field to independent service men and former Grunow dealers. Purchase your Grunow parts direct. At reasonable prices. Refrigerant CH₂-CL₂, gallon—\$4.00, compressors exchange—\$11.00, Carrene meters exchange—\$3.00, compressor oil per gallon—\$1.75. Many other items not listed. 3577 Fourteenth Street, Detroit, Michigan.

ATTENTION: G. E. Rebuilders. Brand new high side floats \$2.95. New ½-¾ H. P., 4 cylinder, 1½" bore, 1½" stroke, compressors with valves and flywheel \$28.50. New 2 cylinder, 1 H. P., 2" bore, 2½" stroke, compressors with flywheel and valves \$38.50. New 2 cylinder, 2 H. P., 2½" bore, 3½" stroke, compressors with flywheel and valves \$49.00. Write for our low prices on complete new condensing units. REFRIGERATION SUPPLY JOBBERS, 2521 N. Crawford Ave., Chicago, Ill.

250 BRAND NEW Frigidaire compressors in original cartons, suitable for ¼ and ½ H.P. high sides. Specifications: Frigidaire part No. 1125-312, twin cylinder, complete with flywheel; bore—1½", stroke—1-7/16". In single lots—\$10.50; 10 or more—\$9.50; 25 or more—\$9.00. F.O.B. New York City. REFRIGERATOR CORPORATION OF AMERICA, 390 Fourth Avenue, New York, N. Y.

REPAIR SERVICE

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Leeds & Northrup Co. Expansion Advances Leeds, Redding

PHILADELPHIA—In an expansion of Leeds & Northrup Co.'s executive set-up, Morris E. Leeds, founder and president, has assumed a newly created post as chairman of the board, and Charles S. Redding, formerly vice president in charge of research and engineering, becomes president.

Mr. Redding took his first position with Morris E. Leeds & Co., predecessor of the present firm, for 15 months between high school and college. After two years as instructor in mechanical engineering at the University of Pennsylvania, he returned to Leeds & Northrup in 1909, and has since held executive positions in every division of its activities.

He became second vice president in 1924, was treasurer from 1922 to 1924, and was named vice president in charge of research and engineering in 1928.

STARTED IN 1899

Mr. Leeds, who will continue active in policy matters, started his own business in 1899, manufacturing balance-type electrical measuring instruments—resistors, condensers, galvanometers, inductors, etc. He pioneered development of the automatically operated balance-type instrument which in addition to measuring would also record, signal, and control, and in 1920 was awarded the Edward Longstretch Medal of Merit of the Franklin Institute for this invention.

Paralleling these mechanical developments was the formulation by Mr. Leeds of an industrial relations policy which in 1931 won for him the Forbes Award for the best employer-employee plan actually in operation. In 1936, the Institute of Management awarded its Gantt Medal to Mr. Leeds, citing him for "distinguished achievement in industrial management as a service to the community."

Refrigeration Can Prevent Food Poisoning, Detroit Health Head Advises


DETROIT—Proper care of foods through adequate refrigeration will eliminate many of the food poisonings in the summer months, stated Dr. Henry F. Vaughan, health commissioner of Detroit, in a warning issued recently.

"Particular care should be given to milk," he said. "Bottles should be placed in the refrigerator immediately after delivery and not be allowed to stand outside during the cooking. Foods prepared with milk, cream sauce, or salad dressing should be iced at once after preparation and not allowed to stand at room temperature."

Dr. Vaughan added that meats, whether raw or cooked, must be kept cold, and that fruits and berries which showed decomposition may cause intestinal disturbances.



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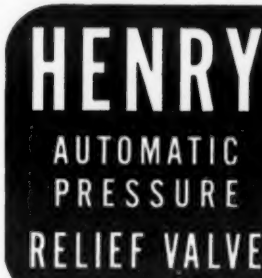
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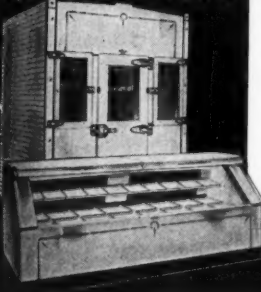
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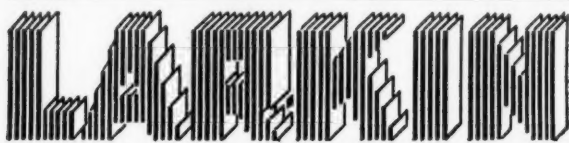
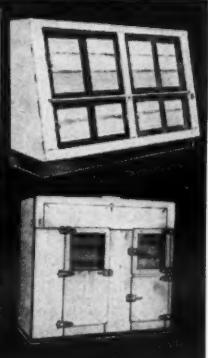
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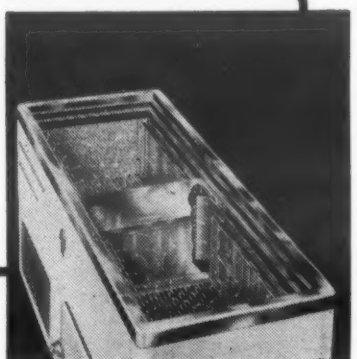
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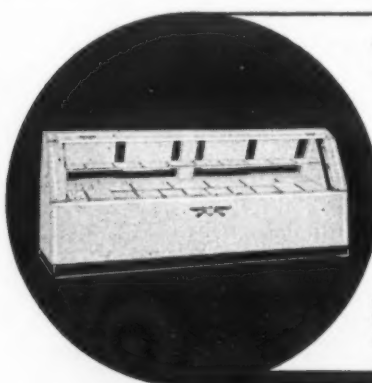
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Export Business

Reciprocal Trade Agreements Planned To Puncture Foreign Tariff Walls

WASHINGTON, D. C.—Despite the warclouds over Europe and Asia, the Department of State and the Department of Commerce are going ahead with their plans to conclude more reciprocal tariff agreements with nations which have erected trade barriers against American products.

American manufacturers and suppliers will do well to contact these departments with reference to getting preferential treatment for their products in coming negotiations.

In recognition of the importance international politics now play in world trade, the personnel of the entire foreign service of the Bureau of Foreign and Domestic Commerce has recently been transferred to the Department of State.

However, their findings will still be turned over to the Department of Commerce for dissemination to American business men, and contact with them may be made through the Bureau of Foreign and Domestic Commerce.

INDUSTRY CAN BE HEARD

The Trade Agreements Act requires advance notice of intention to negotiate an agreement, in order that any interested person may have an opportunity to present his views. Industry representatives who have "views" to present are readily accorded a hearing.

Nema (National Electrical Manufacturers Association) has a Tariff and Reciprocal Trade Agreements Committee, one of whose functions it is to cooperate with the appropriate governmental agencies.

The Trade Agreements Act grants the President authority to reduce existing duties and other charges on imports up to 50% in exchange for the removal or reduction by other countries of restrictions affecting American exports.

When such mutual concessions are negotiated they are expressed in a trade agreement, which establishes the conditions under which business shall be conducted between the two parties. The underlying principle is that trade is a two-way affair and that sound business is profitable to both the buyer and the seller.

ORGANIZATION DETAILS

To carry out this mandate from Congress, it was necessary to provide new governmental machinery, and a special organization was created to which is entrusted the formulation and negotiation of trade agreements.

A number of separate government departments and agencies are interested in foreign trade, and this organization is, therefore, inter-departmental in character, being composed in all its branches of representatives from the Departments of State, Commerce, Agriculture, and the Treasury, as well as the Tariff Commission.

At the top is the Trade Agreements Committee, which has general supervision over the drawing up of agreements and is directly responsible to the Secretary of State and the President, with whom the final authority rests.

Under this central committee more than fifty sub-committees have been set up to deal with all the many aspects of the program, individual countries, individual industries or products and different types of technical problems, such as import quota systems or foreign exchange controls. Each department designates as its committee members the officials best qualified for the particular task to be performed.

When it has been determined that conditions are favorable for the conclusion of a trade agreement with a given country, and the country concerned has indicated its willingness to negotiate on the American basis of equality of treatment and the elimination of discriminations, a special committee on that country is formed to make the necessary detailed studies.

The representative of the Department of Commerce on this Country Committee assumes responsibility for the studies concerning the concessions that may be asked for the

benefit of our exports, and it is the rule to call back our Commercial Attache from the country in question in order to take advantage of his practical experience on the spot.

Similarly, the Tariff Commission studies imports from the country in question and indicates where concessions on our part might be considered.

The Department of State has primary responsibility for drafting the general provisions, and also functions as the coordinating agency in the inter-departmental organization.

CONSULT PRIVATE FIRMS

Obviously, those actually engaged in a particular industry or branch of trade know their own business better than the government does, and it is, therefore, particularly important that the information and experience acquired by interested private firms should be made available to the government officials engaged in formulating and negotiating trade agreements.

For this reason, the Committee for Reciprocity Information was created to serve as an organ of liaison between government and business.

This inter-departmental committee assembles all pertinent information submitted by interested parties and sees that this information is placed in the hands of the representatives of the various departments in the Trade Agreements organization.

When the State Department issues official notice of intention to negotiate an agreement with a particular country, which notice is accompanied by a list of the articles that will come under consideration for the granting of concessions by the United States, the Committee makes public announcement of the date up to which written presentations of views will be received as well as the date on which it will begin the public hearings required by law.

PROVISIONS OF AGREEMENTS

Briefly, the trade agreements concluded by the United States include the following provisions: (1) Schedules of commodities embodying the reciprocal concessions regarding customs duties and other charges on imports; (2) special provisions, which define and limit the right to impose quantitative restrictions on imports or measures of exchange control, and which assure equitable treatment if such restrictions are imposed; (3) a stipulation that, in the event of a substantial alteration in the rate of exchange between the currencies of the two countries, the Government of either may modify or terminate the agreement; (4) guarantees that imports will not be subjected to higher internal taxes or charges than those payable on similar articles of national origin or of other foreign origin; (5) a broad most-favored-nation clause which assures to imports from the other country treatment as favorable in every respect as that accorded to imports from any third country; (6) provisions that a specific concession may be modified or withdrawn if it should be found that some third country is obtaining the major benefit; and (7) assurances that, if either country adopts any measure, which, even though it does not conflict with the terms of the agreement, has the effect of nullifying or impairing any of its objects, a mutually satisfactory adjustment of the matter will be effected.

HORSE TRADING

It goes without saying that, when a business transaction is negotiated, (and a trade agreement is exactly like a business transaction) what one obtains depends on what one is able to give. You can't buy something worth a thousand dollars, if you are only able to pay five hundred dollars.

The extent of the concessions offered by the United States, therefore, determines the extent of the concessions it is able to secure from the other country.

Each country makes the final decision as to what it is able to offer.

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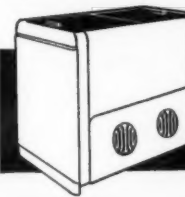
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Commercial Refrigeration

A.G.A. Describes Operation and Outlines 'Competitive Arguments' To Be Used For Gas-Fired Commercial Units

NEW YORK CITY—Progress that has been made in the design and application of commercial gas refrigeration units is described in a recent report by the Committee of Commercial Gas Refrigeration of the American Gas Association.

The report states that Servel, Inc. has now begun to build 1/4 ton to 1/2-ton gas fired commercial cooling units and is selling them through co-operative gas companies in such metropolitan centers as Brooklyn, Chicago, Philadelphia, Detroit, Cleveland, St. Louis, New Orleans, Kansas City, Rochester, and Columbus.

Included in the report are some suggestions as to how the gas units can be sold competitively against electrically powered condensing units, and an analysis of the current market for commercial refrigeration.

FLOODED EVAPORATOR

Chief argument that will be made by those selling gas refrigeration is that refrigeration effect at remote points is provided with gas refrigeration under constant secondary pressure.

"As no lubricating oil is necessary

in the Electrolux system," declares the report, "flooded secondary evaporators are used with the result that uniform temperatures are maintained. Very small temperature differences between secondary evaporators and refrigerator temperatures make it possible to maintain correct relative humidities."

It is claimed that the differential between the "on" and "off" cycles is much less in gas refrigeration than in electric units, the gas units having a cut-in point at 40° F. and a cut-out point at 20° F.

COST MORE NOW

At present, says the report, first costs of the gas-fired commercial refrigeration units are higher than the electric units. No conclusive data is yet obtainable on operating costs, the report declares.

The report describes the gas commercial refrigeration unit development as follows:

"About three years ago several trial installations of the present design of commercial unit were made in Columbus, Ohio, and about a year was required to eliminate the usual troubles which develop in field applications of any new product.

"Promotional effort was started two years ago in several large cities in the United States, and as the

again condensed to a liquid form by the unit evaporator. This cooling medium is used over and over, requiring no renewal as no deterioration or loss is experienced.

CONTROLS

"The gas control operates the burner full-on and full-off. This is necessary to permit a complete defrosting cycle of the secondary evaporators in the refrigerators and constitutes the second main difference between the household and commercial units.

"The safety pilot and high temperature cut out are incorporated in the gas control design. Single and double ring ribbon type atmospheric burners are used for both natural and manufactured gas.

"The thermostatic water control is especially designed for economic use of water. Water does not come in contact with the syphon bellows because it is separated from the water chamber by a housing. Gas and water pressure regulators and filters are part of the standard accessories furnished with the unit.

SECONDARY SYSTEM PARTS AND THEIR FUNCTIONS

"The secondary system provides a means for cooling an insulated enclosed space located at one or more places at some distance from the unit. The means for conveying the cooling medium from the unit to the point of use requires certain additional equipment.

"The transfer vessel is a mechanical device designed to transfer the secondary refrigerant from unit evaporator level to any secondary evaporator located in a refrigerator at some remote point, usually at a higher level. No transfer vessel is required where gravity flow of secondary refrigerant can be arranged.

"Refrigerant liquid lines are of 3/8 inch o.d. insulated copper tubing. The refrigerant vapor lines are also

mechanical refrigeration, even though the average store owner has had many trying experiences with under-capacity equipment or forced shut-downs, unreliable service, power failure, and unwarranted high maintenance costs."

And on sales practices:

"Prospects concerned with the purchase of commercial refrigeration generally consult with the following sources before a purchase is made: (1) Compressor manufacturer's agent, (2) refrigerator manufacturer for new equipment, and (3) refrigeration engineer for replacement equipment.

"Particularly in the larger cities, the market is most unstable so far as price is concerned. Refrigerator manufacturers frequently sell units at their own cost to insure the sale of their other products. List prices are not maintained, abnormal allowances are given on replaced equipment, and there is a substantial traffic in used and rebuilt compression units which sell for from 1/2 to 3/4 the cost of new equipment.

"Because of this, severe price competition can be expected and unless subsidized at first, the gas refrigeration unit will be at a decided price disadvantage, even when installed at the utility's cost.

"It is difficult for the utility to obtain initial dealer support as the gas unit is at a distinct disadvantage so far as first cost, acceptance, and interlocking trade relationships are concerned. This last refers to sales agreements between certain unit and refrigerator manufacturers, whereby prospects are exchanged and companion equipment specified.

"To overcome these sales handicaps, it may be necessary for the utility to accept the order for the complete installation, including the refrigerator, and to finance it over a

period of one or two years. Where a standard type of refrigerator is involved, its resale, in the event of repossession, should not prove difficult."

"The sale of commercial gas refrigeration should be assigned to the commercial or industrial sales division of the utility where it can be placed in a summer schedule to balance industrial and commercial space heating activities. Anyone who is competent to calculate the heat loss of a building and specify equipment can specify refrigeration equipment after a training period with the manufacturer's engineers.

"In some instances it may be necessary for the gas company to sell the complete installation, including refrigerator, and to sublet the installation contract to a qualified refrigeration engineer, who in turn will sublet the plumbing work to a registered plumber. The installation of gas, water, drain, and flue connections can be done by either a registered plumber or the gas company and the secondary system can be installed by a qualified refrigeration engineer or the gas company, depending upon the policy of the individual gas company."

The committee made an analysis of 115 existing installations located in 50 cities and found as follows:

1. Eating places	30.4%
2. Groceries	20.0
3. Institutions	15.6
4. Butcher shops	14.8
5. Miscellaneous	7.9
6. Florists	6.1
7. Bakeries	5.2
Total	100.0%

Analysis of types of refrigerators cooled by 164 commercial refrigeration units:

1. Reach-in	34.7%
2. Walk-in	30.5
3. Display cases	20.8
4. Cold water systems	9.1
5. Miscellaneous	4.9
Total	100.0%

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Key Specifications of Gas-Fired Commercial Units

Model No.	CH-502	CJ-652	CJ-1002
Outside dimensions	14 1/4" x 30 3/4" x 64 1/4"	14 1/4" x 30 3/4" x 64 1/4"	14 1/4" x 30 3/4" x 70 3/4"
Flue gas outlet	3"	3"	3"
Shipping weight	560 lbs.	560 lbs.	635 lbs.
Net weight	450 lbs.	468 lbs.	535 lbs.
Input—Maximum	17,000 B.t.u./hr.	20,000 B.t.u./hr.	31,000 B.t.u./hr.

(Multiple units can be used on single large refrigerators)

result of this experience, the commercial gas refrigeration unit is considered today to be ready for extensive selling effort.

"Commercial gas refrigeration units are water cooled, similar in basic design to the original Electrolux household unit and are not, therefore, entirely new or experimental. The few differences are the result of necessary modifications for better adaptability to larger sizes necessary in the commercial field.

"The commercial unit is composed of a series of steel cylinders connected by steel tubes which are welded together to form a single intercommunicating container. This container is mounted within a steel frame which also supports removable enameled steel outside panels.

"A charge, consisting of a small quantity of aqua ammonia and hydrogen gas, is hermetically sealed within the unit, the liquid seeking the lowest levels and the hydrogen gas filling the remaining space. The charge is under sufficient pressure to condense the ammonia vapor at ordinary water temperatures. The pressure is the same throughout the unit but varies as the cooling water temperature changes.

THREE CYCLES

"The operation of the unit comprises three simultaneous and continuous cycles: the ammonia cycle, the hydrogen cycle, and the aqua ammonia cycle. The rates at which these cycles are performed governs the amount of refrigeration.

"As the rates accelerate, refrigeration increases, and conversely. With the application of heat to the generator the regular Electrolux cycle is set in motion.

"The refrigeration produced in the evaporator is not used directly but is transferred by means of a secondary system partly filled with liquid methyl chloride or some other suitable refrigerant. The evaporator then serves to cool the secondary condenser.

"Methyl chloride is circulated from the unit evaporator as a liquid through the secondary evaporator located in one or more refrigerators at several remote points and returns as a vapor to the unit where it is

copper tubing 1/2 inch o.d. on the two smaller units and 5/8 inch o.d. on the larger.

Surge tank is a vertical cylindrical receiver located in the refrigerator to receive and distribute the liquid refrigerant to the secondary evaporators. The vapor return line is also connected to the surge tank to permit vapors, as formed, easy access to the return line. The surge tank also functions as a reservoir for any excess charge of refrigerant which may be present from choice or otherwise.

"Secondary evaporators are ordinarily made up of a continuous run of 5/8 inch o.d. tinned copper tubing onto which a number of 3-inch square aluminum plates .035 inch thick have been pressed and spaced at regular intervals of 1/2 to 1 inch apart. These evaporators are available in practically any size or shape to fit the cooling space of any refrigerator.

SIZES AND SPECIFICATIONS

"Commercial refrigeration equipment is now available in three models, with capacities as follows:

Model CH-502	500 lbs. I.M.E.
Model CJ-652	650 lbs. I.M.E.
Model CJ-1002	950 lbs. I.M.E.

Says the committee with respect to the condition of market:

"The trend is definitely toward



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WILSON SYSTEMS OF MILK-COOLING

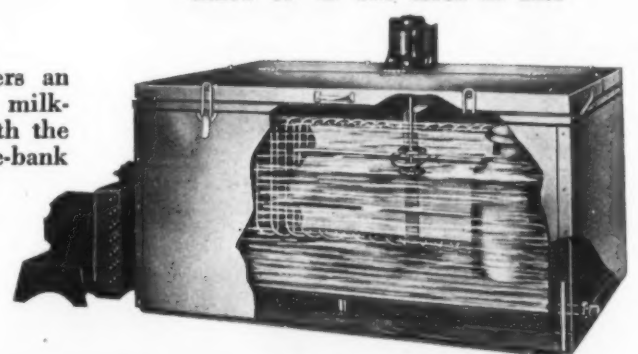
BUILD DEALER SALES because WILSON offers an exclusive LIFE-TESTED Cooler for every type of milk-cooling requirement. The VERTI-COIL cooler with the RAPID-COOLER AGITATOR uses the only efficient ice-bank method for extremely fast cooling of two milkings daily. The trouble-free agitator has one moving part, ball-bearing mounted. ALL WILSON CABINETS have a margin of reserve that means LONG LIFE with a MINIMUM of service and cost. GET THE FACTS about the WILSON SYSTEMS, THE COOLERS THAT SELL.

WRITE FOR DETAILS

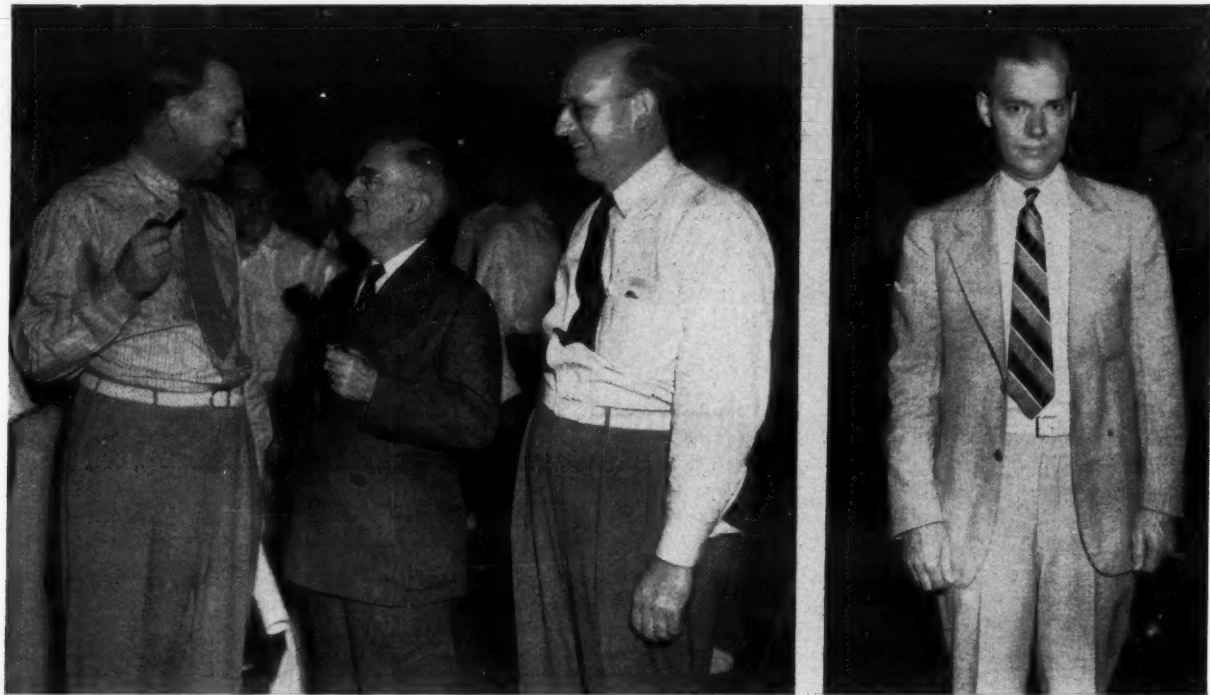
WILSON CABINET CORP.

SMYRNA DELAWARE

THIS SIX-CAN VERTI-COIL COOLER WITH RAPID-COOLER AGITATOR WILL COOL SIX CANS OF MILK NIGHT AND MORNING BELOW 50° IN ONE HOUR OR LESS



They Look Mighty Happy About Something



In an informal moment during Philco's recent distributor convention at Frenck Lick, Ind., Larry E. Gubb, president, D. J. MacKillop, manager of the southern division, and James T. Buckley, president of Philadelphia Storage Battery Co., talk over the new 1940 radio line, all models of which are wired to receive television sound. Right: W. Paul Pones, president of Philco Refrigerator Co., told the 900 representatives of distributorships at the meeting about augmented merchandising plans for Conservador refrigerators.

Nebraska Utility Blames Sales Slump on Salesmen Turnover & Failure To Canvass

(Concluded from Page 1, Column 3) consider is payment for work done. One big trouble at this time is that too many sales managers believe in half time selling. They crowd the best part of the season to the limit and then discharge the salesmen or cut them to half time. That hurts the morale and you cannot get the best from your salesmen unless they also are getting living wages. They must be drawing sufficient pay, so they do not worry all the time.

"Neither should the 'house hogs' be permitted to take all the better prospects that are picked up solely because one is assigned to selling direct from the floor. Apportion these out as nearly the same as is possible. You must do something to make the real salesmen feel they are appreciated at all times and will be given a 'fair shake' regardless of the desires of others.

"Salesmen turnover is all to the bad despite the best efforts possible on the part of the sales manager. Therefore boost for your salesman at all times. Let him know the house backs him in his efforts and is just as much concerned in his success as he himself is, if not more so. Tie the salesman to the firm in every way possible. Give him all-year-around employment. It makes a better salesman of him and saves the house the expense of training a new force."

Referring to the increase in sales

Northern California Sales Again Gain

(Concluded from Page 1, Column 4) sales being reported compared with 3,005 last year.

Washer sales were up over 1938 figures, 647 units to 592; ironer sales were 131 units this May, against 73 last year; while ranges had the closest race with 1938 totals, winning out by the narrow margin of 21 this year to 18 last year. Vacuum cleaner sales amounted to 1,443 units, against 1,115 last year.

All major appliances except electric ranges were well ahead of 1938 figures for the first five months of the year. Refrigerator sales during the period amounted to 4,850 units, compared with 3,695 in the same months of last year.

Radio sales totaled 20,378 units, against 17,226 last year; washer sales were 3,290, against 2,652 last year; ironer sales totaled 661, against 422 last year; and electric ranges 52 units, against 62 last year.

Following is a tabulated comparison of 1938 and 1939 major appliance sales for the five-month period reported so far:

	1939	1938
Refrigerators	4,850	3,695
Radios	20,378	17,226
Washers	3,290	2,652
Ranges	52	62
Ironers	661	422

of vacuum cleaners, while sales of refrigerators and washers had dropped alarmingly. Mr. Haney ventured the opinion that sales of the latter decreased when the good old method of door-bell ringing was discontinued. Vacuum cleaners are still being sold—and sold in increased numbers by the ring-and-wait method.

Mr. Haney is convinced that there is too much slack in the selling methods of today—and that salesmen are not as much to blame for the condition as are supervisors.

Summing up, he repeated that the three necessary things that enter into the making of a successful sales force, are, first, proper personnel; next, proper supervision, and finally, a dependable living wage.

Utility Group To Study Fuel Costs, Refrigerator Trade-In Values

MADISON, Wis.—"Blue book" refrigerator trade-in valuations, roaster sales promotion, comparative fuel costs, and water heating "off-peak" controls lead the list of subjects to be studied by a merchandising committee of the Wisconsin Utilities Association recently appointed by Harold Turkelson, chairman of the commercial division.

On the new committee are M. D. Hagen, Wisconsin Hydro Electric Co.; Fred J. Dinkel, Northern States Power Co.; L. A. Falk, Wisconsin Power & Light Co.; George M. Fitzgerald, Wisconsin Public Service Corp.; and A. S. Nissen, Wisconsin-Michigan Power Co.

Air Conditioning Specified For Ford Project's Apartment Houses

(Concluded from Page 1, Column 3)

The Springwells Park subdivision was platted last fall, as part of a new residential community embracing an area of 1,069 acres, which will ultimately provide homes for a population of 16,000 persons. The subdivision lies in the central part of the north half of the site and is bounded by Greenfield Rd., Airport Drive, property adjoining the Rouge River, and property adjoining the Michigan Central right-of-way.

Those apartment buildings to be constructed at once are of the two-story walk-up type and two-story terrace type. They will conform to modern architectural planning, including approved air-conditioning systems and electric garbage disposal units in each apartment.

MEDIUM-PRICED RENTALS

The apartments will vary in size from two to six rooms. Rental prices have not been definitely established, but will be in the medium-price range. Garages will be available for those requiring them.

All apartment buildings will be of fireproof construction, being framed in Stran-Steel. Sidewalks will be of brick, and the floors of reinforced concrete covered with hardwood flooring.

The entire apartment project will be landscaped and developed as a garden. Approximately 80% of the land assigned the apartment area will be devoted to gardens, decorative garden walls and walks.

SINGLE HOMES AT \$5,500

All new single homes will be of five and six rooms and will be built for sale only. All will have garages attached or semi-detached with a breezeway between the house and the garage. The prices of the homes are expected to start at \$5,500.

Contracts for construction of sewers have been let. Removal of trees from proposed streets is in progress. Rough grading in preparation for paving, laying of sidewalks, installation of water and other utilities is almost completed.

The new homes to be constructed

in the Springwells Park subdivision will be for sale to the public. The apartments will be for rental.

The single building plots will have a minimum width of 50 feet at the building line and an average depth of 120 feet. The first single homes to be built will all be under the direct supervision of the foundation's architectural staff.

TRACT RESTRICTIONS

Restrictions of the tract provide for a close control by the foundation of the architectural treatment of the entire development, in order that the types of homes and locations of buildings will conform to the general layout and typography of that area.

The new community business center will be built at the northwest corner of Greenfield Rd. and Airport Drive. It will face Greenfield Rd., but will be set back a sufficient distance to provide parking space for more than 100 automobiles.

First unit of the business center will have space for nine shops on the first floor and office space for physicians, dentists, and the Ford Foundation on the second floor. Ample room will be allowed for future expansion.

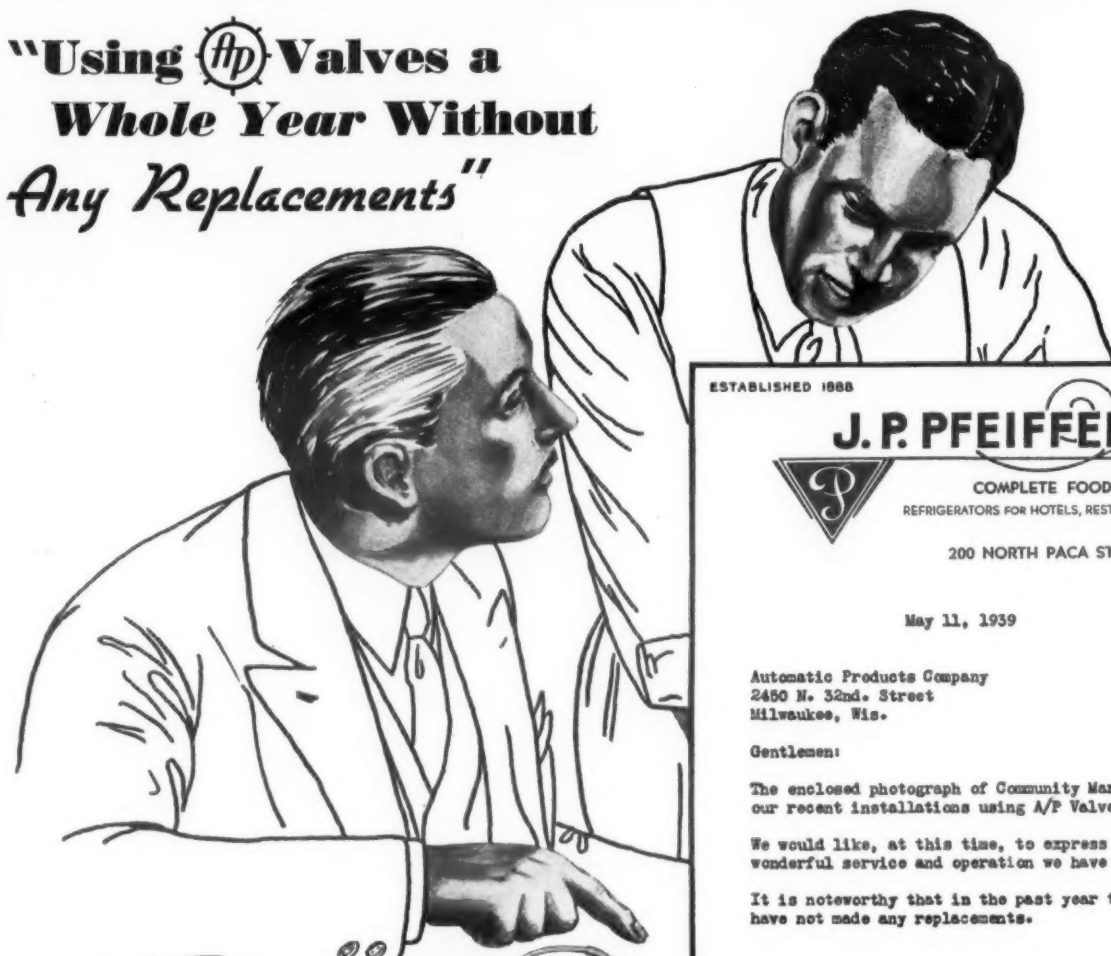
Of the total area of the new subdivision seven and one-half acres is to be devoted to a school plot with adjoining playgrounds. Other play spaces and parks to be provided throughout the subdivision will total approximately six acres.

Birmingham Distributor Celebrates 50th Year

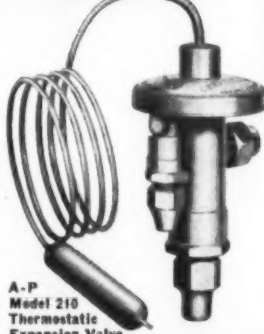
BIRMINGHAM, Ala.—Fifty years in business was celebrated recently by E. E. Forbes, Sr., president of E. E. Forbes & Sons, distributor of electrical appliances and musical instruments here. The concern, which has retail stores in Birmingham, Anniston, and Decatur, Ala., is wholesale distributor for Meadows washing machines, Estate ranges, and Emerson radios. Retail products include Frigidaire and Gibson refrigerators.

Active in the business with Mr. Forbes are his three sons.

"Using A-P Valves a Whole Year Without Any Replacements"



This is the kind of service efficiency that makes an installation profitable to you—and completely satisfactory to your customer. That's why Refrigeration Service Engineers swear by A-P Valves—call them great "Reputation-builders."



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COMPLETE FOOD STORE EQUIPMENT
REFRIGERATORS FOR HOTELS, RESTAURANTS, INSTITUTIONS AND FLORISTS

200 NORTH PACA STREET - BALTIMORE, MD.

May 11, 1939

Automatic Products Company
2450 N. 32nd. Street
Milwaukee, Wis.

Gentlemen:

The enclosed photograph of Community Market, Annapolis, Md., is one of our recent installations using A/P Valves.

We would like, at this time, to express our appreciation for the wonderful service and operation we have had from your products.

It is noteworthy that in the past year that we have used A/P Valves we have not made any replacements.

Very truly yours,

J. P. PFEIFFER AND SON

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